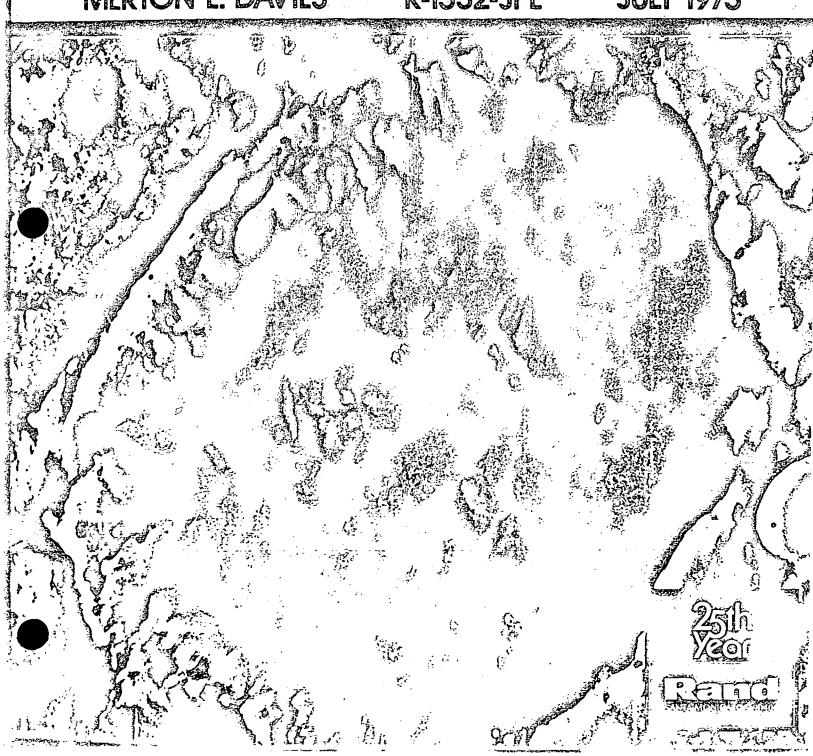
CONTROL POINT MEASUREMENTS ON MARINER 9 PICTURES

SPONSORED BY THE JET PROPULSION LABORATORY, CALIFORNIA INSTITUTE OF TECHNOLOGY

MERTON E. DAVIES

R-1332-JPL

JULY 1973



This research was supported by the Jet Propulsion Laboratory, California Institute of Technology, under Contract No. 953011. Views or conclusions contained in this study should not be interpreted as representing the official opinion or policy of the Jet Propulsion Laboratory.

Copyright © 1973 Published by The Rand Corporation

CONTROL POINT MEASUREMENTS ON MARINER 9 PICTURES

SPONSORED BY THE JET PROPULSION LABORATORY, CALIFORNIA INSTITUTE OF TECHNOLOGY

MERTON E. DAVIES

R-1332-JPL JULY 1973

This work was performed for the Jet Propulsion Laboratory, California Institute of Technology, sponsored by the National Aeronautics and Space Administration under Contract NAS7-100.



PREFACE

The identification and measurement of points are the first steps in establishing a control net by photogrammetric means. The control net, which is a land survey that gives the latitude and longitude of the control points, is used in the preparation of maps to relate the topography to the coordinate system.

The work on the control net of Mars started with the Mariner 6 and 7 pictures and has been redone and greatly expanded with the results from the Mariner 9 mission. The Mariner 9 navigation information and camera calibration data are much better than those for Mariner 6 and 7, rendering the prior work obsolete. The Mariner 9 point identification and measurement program started immediately after the spacecraft went into orbit and has continued since that time. Most of the initial measurements had to be discarded because the pictures on which they were based were poor due to the dust storm on Mars. Much improved pictures became available as the mission progressed.

Page Intentionally Left Blank

SUMMARY

This report contains a listing of all of the measurements of the control points on the Mariner 9 pictures that were used in the computation of the June 1973 control net of Mars.

RO 73-84

-vii-

CONTENTS

PREFAC	E	111
SUMMAR	XYX	v
Section	o <u>n</u>	
ī.	INTRODUCTION	1
	THE MEASUREMENTS	
ACKNOW	TLEDGMENTS	132
REFERE	INCES	133

I. INTRODUCTION

A new control net of Mars has been determined by photogrammetric means using the pictures taken by the Mariner 9 spacecraft during its one-year life in orbit. (1) All of the pictures used in the control net computations were taken with the wide-angle camera, which had a focal length of 52.267 mm. The faceplate of the vidicon was $9.6 \text{ mm} \times 12.5 \text{ mm}$, and the television readout scanned 700 lines per frame and sampled each line 832 times, producing a format of $700 \times 832 \text{ picture}$ elements (or pixels) per frame.

The control points are identified on at least two and preferably more pictures and their positions on these pictures are measured. These measurements are the basic data for the analytical aerotriangulation which yields coordinates for these points. Thus, they are the starting point for the computations. Section II discusses the method of making the measurements, the picture coordinate system, and the removal of distortions. The table gives 9804 measurements of 1645 points on 660 pictures; these are the starting data for the computation of the June 1973 control net. (1)

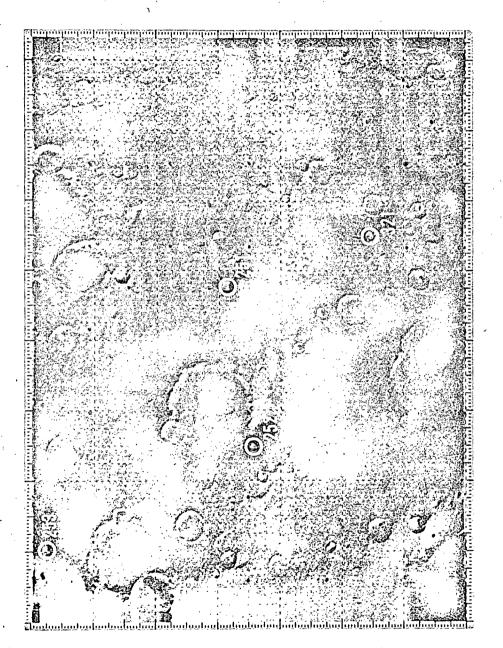
II. THE MEASUREMENTS

The control points are defined as the centers of particular craters wherever possible. In a few regions, such as the areas around the volcanoes, craters are scarce and other topographic features are used.

The measurements are made by counting pixels on pictures that have had no geometric processing but are high-pass filtered. A dotted grid every 25 and 100 pixels is superimposed to facilitate pixel counting, as is illustrated in the figure. These special versions of the pictures are made at the Image Processing Laboratory (IPL) of the Jet Propulsion Laboratory (JPL). Pixel counting is used instead of a comparator because the image film converter at IPL introduces its own distortions.

The origin of the pixel measurements is the upper left-hand corner; X is measured to the right (at JPL this is called the sample) and Y is measured down (at JPL this is the television line). The measurements are made with the aid of an acetate template on which circles have been scribed with a pair of dividers. The proper size circle is placed over the crater and the pixel coordinates of the center estimated to one-tenth pixel with the aid of the pixel grid. Seven to ten measurements of each point are made by two or three people and then averaged. These averages $(\overline{X}, \overline{Y})$ are tabulated in the table. When the picture quality is good and the crater is well defined, the measurements have standard deviations of 0.2 to 0.5 pixel (0.003 to 0.007 mm). Any measurement differing from the average by more than two pixels is rejected as a gross error.

During calibration before launch, the locations of the 111 reseau points on the vidicon faceplate (image plane) were carefully measured using an optical comparator and the location of the principal point was determined. (2) The IPL developed a computer program to locate the reseau marks on the pictures. A program to remove the optical and electronic distortions was prepared using the reseau locations and measurements of a special cross-hatch target in the collimator. (3) With this program the pixel coordinates of a point \overline{X} , \overline{Y} are corrected for distortions and scaled to image coordinates at the focal plane (vidicon faceplace). These coordinates -- x_0 , y_0 -- are given in millimeters for each measurement



Control points 251,252,253, and 321 identified on map-gridded version of Mariner 9 frame 135 - 08 (DAS 06425268)

in the table. The origin of the image coordinates is the principal point with the $\mathbf{x}_{\mathbf{0}}$ axis parallel to the center line of reseau points and positive to the right; y_0 is positive down.

The table lists the 9804 measurements of 1645 points giving both pixel coordinates and image coordinates. The 660 pictures are identified by revolution number and frame number within the revolution as well as the DAS reference time. (4)

Measurements of the Control Points on Mariner 9 Pictures

Rev/ Frame	DAS Reference	Point	Mean I Coordi		Image Coordinates (mm)	
rrame	Time		$\overline{\mathbf{x}}$	Ÿ	x _o	yo
6506	03930825	262	196.3	140.0	-3.6962	-3.1420
		263	243.2	335.3	-2.9699	-0.3820
•		264	292.7	454.1	-2.2175	1.2781
		266	546.3	466.8	1.6139	1.4437
· ·		333	307.7	656.8	-1.9998	4.1112
		334	340.6	278.8	-1.5018	-1.1776
6510	03931105	184	457.4	311.0	0.2693	-0.7230
•		186	378.0	508.0	-0.9232	2.0346
	·	333	691.9	21.3	3.8923	-4.7907
	·	1801	554.7	228.7	1.7374	-1.8747
•		1802	267.3	210.3	-2.6154	-2.1301
6713	04002925	184	657.1	234.7	3.2926	-1.8088
		186	575.8	463.8	2.0632	1.4705
• .]	1801	752.9	129:9	4.7953	-3.2767
		1802	442.9	162.1	0.0445	-2.8189
		1803	133.1	214.3	-4.6493	-2.1113
6711	04002995	194	354.1	575.2	-1.2858	2.9650
		195	650.7	248.0	3.1927	-1.6200
		1863	566.0	161.2	1.9097	-2.8275
6910	04074745	184	792.9	114.7	5.4298	-3.4869
		136	729.1	363.4	4.3817	0.0756
•		1902	568.4	69.7	1.9534	-4.1087
•		1803	241.7	181.5	-3.0061	-2.5515
6911	04074815	190	365.5	665.3	-1.1172	4.2277
•		191	242.8	633.7	-2.9924	3.7917
		192	178.0	395.6	-3.9588	0.4594
		193	381.4	401.6	-0.3765	0.5395
		194	439.3	546.2	0.0073	2.5574
		195	728.4	155.1	4.3949	-2.9142
		1863	631.4	82.0	2.9206	-3.9370
7110	04146635	187	442.8	-309.7	0.0465	-0.7516
		189	324.7	571.5	-1.7355	2.9136
		190	194.3	106.0	-3.7317	-3.6326
		1803	435.6	135.2	-0.0705	-3.1927
9710	J5 J58378	223	249.0	388.6	-2.8786	0.3684
	·	236	522.5	428.8	1.2577	0.9217

Rev/	DAS Reference	Point	Mean F Coordi		Image Coordinates (mm)	
Frame	Time		$\overline{\mathbf{x}}$	Ÿ	x _o	y _o
				-		
9712	05058448	223	488.9	509.0	0.7562	2.0431
		236 238	761.5 418.4	544.8 171.9	4.8774	2.5956
		255	410.4	111.0	-0.3230	2.003
9714	35358518	223	746.0	527.6	4.6521	3.7810
•		224 238	336.7 662.4	498.6 282.8	-1.5430 3.3707	1.9043
		239	144.5	244.3	-4.4725	-1.6673
9716	05053538	224	610.3	625.7	2.5978	3.6984
, , , ,	0505050	237	205.9	503.5	-3.5352	1.9771
		239	406.2	353.7	-0.5029	-0.0516
		240	199.4	115.0	-3.6519	-3.4882
9718	05058658	237	493.5	629.9	0.8230	3.7416
		239	690.4	473.5	3.7910	1.5632
•		240	469.2	214.4	0.4272	-2.0677
9336	05094148	248	646.9	372.5	3.1316	0.1369
	{· ·	250	520.2	508.2	1.2275	2.0324
•		251	271.7	233.8	-2.5474	-1.7989
9310	05094238	251	670.5	600.5	3.4958	3.3574
		. 252	457.7	616.3	0.2853	3.5490
•		253 258	370.3 692.6	258•3 157•3	-1.0533 3.3401	-1.4531 -2.8669
9312	05094358	253	590.4	455.2	2.2807	1.2947
	·	254 255	198.1 165.7	353.8 165.7	-3.6519 -4.1567	-0.1145 -2.7744
		256	483.8	166.8	0.7373	-2.7328
9314	J5094428	384 -254	532.3 427.7	298.9 561.5	2.9128	2.7822
•	·	255	391.6	368.9	-0.7237	0.0938
		25ó	719.2	364.7	4.2293	0.0380
5318	05034568	257	798.2	512.3	5.4378	2.1490
. = =		-305	529-4	405.9	1.3592	0.5994
9904	05130058	242	423.0	337.6	-0.2962	-0.3488
, , , , ,	05130050	243	437.9	128.5	0.7251	-3.2722
		245	305.0	398.2	-2.0220	-0.7561

Rev/	DAS Reference	Point	Mean l		Image Coord	linates (mm)
Frame	Time		x	Ÿ	x _o	уо
9906	05130128	234	207.0	206.8	-3.5280	-2.1820
		242 243 244	615.5 681.7 457.7	497.1 282.5 89.9	2.6626 3.6635 0.2676	1.8338 -1.1198 -3.8087
	,	245	502.5	458.8	0.9586	1.4832
9903	05130198	234 244 245	415.3 665.0 709.2	375.4 250.9 631.6	-0.3572 3.4101 4.0860	0.1811 -1.5651 3.8183
		246 361	173.7 373.6	204.7 150.3	-4.0305 -1.0105	-2.2210 -2.9647
9910	U5130268	172 222 246 362	100.5 551.8 393.2 275.9	18.1 36.6 379.4 170.1	-5.2158 1.7094 -0.6992 -2.4890	-4.9739 -4.5545 0.2385 -2.6930
9912	05130338	171 172 222 246 362	221.2 326.2 781.8 624.9 506.2	96.2 183.3 209.2 563.2 352.2	-3.3234 -1.7272 5.2085 2.8056 1.0080	-3.7496 -2.5021 -2.1370 2.8185 -0.1471
9914	05130408	171 172 362	461.2 569.6 752.7	277.7 370.5 538.4	0.3233 1.9643 4.7405	-1.1839 0.1083 2.5007
10001	05164708	251 252 253 258	553.7 446.2 306.0 434.6	500.1 600.9 507.4 332.1	1.7396 0.1169 -2.0122 -0.0711	1.9441 3.3504 2.0347 -0.4151
10602	05164778	251 252 261 262 1874 1914	366.9 273.7 188.3 523.3 259.0 738.8	31.2 123.2 433.6 502.3 260.2 557.4 370.4	-0.7765 -2.5237 -3.8023 1.2735 -2.7366 4.5273 -0.8512	-4.6553 -3.3672 0.9903 1.9397 -1.4390 2.7549 0.1015
10003	05164848	262 263 264 266	373.3 335.9 424.4 753.3	67.6 361.6 532.5 619.7	-1.0147 -0.8100 -0.2187 4.7619	-4.1425 -0.0204 2.3672 3.6619

·		T		<u> </u>	T	
Rev/	DAS Reference	Point		Pixel inates		dinates (mm)
Frame	Time		$\overline{\mathbf{x}}$	Y	x _o	yo
10003	05164848	334	539.7	320.2	1.5146	-0.6080
		1869	172.3	486.6	-4.0405	1.7345
	·	1873	68.3	257.2	-5.6358	-1.5158
		1914	589.8	139.1	2.2767	-3.1370
1,0004	05164918	264	260.9	87.8	-2.7217	-3.8688
		265	492.3	492.4	0.8136	1.8048
		266	537.9	200.0	2.2426	-2.2826
,	ļ	267	285.2	616.5	-2.3387	3.5488
		330	650.3	303.6	3.1865	-0.8359
		333	204.1	339.5	-3.5620	-0.3241
		1800	454.6	619.3	0.2379	3.5848
10006	05166038	199	344.2	431.7	-1.4734	0.9917
		258	98.7	375.6	-5.1837	0.1696
10008	05166108	163	325.0	192.9	-1.7483	-2.3793
		199	605.5	654 • 9	2.5225	4.1016
		258	363.0	616.2	-1.1478	3.5371
		259	226.3	324.8	-3.2287	-0.5325
10010	05165178	163	591.3	396.7	2.2904	0.4617
•		259	499.1	538.0	0.91.02	2.4417
10202	05236738	263	309.6	8.7	-1.9932	-4.9966
•		264	359.6	174.6	-1.2225	-2.6379
		333	341.0	440.0	-1.4871	1.0767
		1801	143.3	571.4	-4.5563	4.3410
		1869 1870	101.7	164.4 531.1	-5.1352 -5.3397	-2.8283 2.3574
		1670	89.0	231.1	-5.3377	2.3514
10203	05236808	261	272.9	237.6	-2.5280	-1.7472
		262	541.0	267.7	3.0464	-1.3333
		263	696.5	559.2	3.8830	2.7721
		1873	352.9	513.8	-1.3017	2.1133
		1874	328.6	51.8	-1.6955	-4.3618
	1	1915	473.0	148.5	0.5743	-2.9947
10204	J5236878	- 2.6-3	- 3415	113.3	-1.4953	-3.4910
		264	388.6	288.3	-0.7734	-1.0393
		265	655.2	663.3	3.2716	4.2481
		266	718.5	352.2	4.2209	-0.1458
		333	357.1	559.4	-1.2380	2.7506
	L	334	493.2	56.5	0.8109	-4.2825

Rev/	DAS Reference	Point	Mean I Coordi		Image Coor	rdinates (mm)
Frame	Time		x	<u> </u>	- × _o	y _o
10204	05236878	1869	120.6	268.8	-4.8342	-1.3268
	·	1870	97.2	648.2	-5.2855	4.0290
10205	05236943	- 265	425.9	131.7	-0.2158	-3.2301
		267	210.3	283.7	-3.4699	-1.1047
		1800	379.2	268.6	-0.9164	-1.3136
10301	05272648	171	456.2	160.8	0.2428	-2.8247
		172	513.2	141.5	1.1093	-3.0954
•		246	722.5	124.0	4.3135	-3.3443
•		284	457.2	470.6	0.2746	1.5021
		285 289	165.1	477.1 577.7	-4.1610 -1.0320	1.6038
		389	628.3	608.0	2.8586	3.4454
10302	05272713	284	267.3	21.0	-2.6306	-4.8237
		289	174.3	127.5	-4.0281	-3.3244
10303	05272788	285	143.2	172.7	-4.4956	-2.6864
•		391	395.2	166.7	-0.6808	-2.7394
		392	78.5	354.8	-5.4817	0.0185
		393	317.5	645.0	-1.8486	3.9476
		1877	122.6	24.3	-4.8588	-4.3611
		1878	183.0	504 • 2	-3.8855	1.9853
10304	05272858	237	464.1	666.2	0.3816	4.2492
		288	731.8	572.0	4.4231	2.9715
		393	153.2	237.3	-4.2636	-1.7642
	·	394 397	297.0 615.6	574.3	-2.1535	2.9611
		391	615.6	561.5	2.6665	2.7893
10305	05272928	287	313.3	271.2	-1.9128	-1.2769
•		288	587.5	190.3	2.2390	-2.4111
•		394	149.3	174.3	-4.4035	-2.6613
		397	473.8	171.5	0.5128	-2.6716
10501	05344608	171	499.4	141.2	0.9013	-3.1002
		172	556.0	110.3	1.7636	-3.5328
		285	207.6	512.9	-3.5116	2.1039
		. 234	545.0	443.9	1.5980	1.1262
		289	460.7	567.9	0.3311	2.8629
		356	372.7	343.0	-1.0102	-0.2759
		389	751.2	543.5	4.7194	2.5923

Rev/	DAS Reference	Point	Mean l Coord	Pixel inates	Image Coordinates (mm)	
Frame	Time		x	· ¥	x _o	y _o
10502	05344678	284 286	379.1 496.6	18.9 608.7	-0.9289 0.8749	-4.8221 3.4399
		289 389 390	290.1 589.6 237.5	142.8 135.4 581.7	-2.2741 2.2732 -3.0639	-3.0804 -3.1806 3.0663
·		391 1875 1877 1879 1880	757.5 654.6 452.1 294.0 128.0	551.3 359.3 456.9 475.2 572.7	4.8160 3.2490 0.1976 -2.1966 -4.7515	2.6818 -0.0523 1.3124 1.5764 2.9465
10503	J5344748	236 290 390 391	333.4 95.4 65.4 602.4	193.3 373.0 151.3 138.5	-1.6173 -5.2217 -5.7047 2.4689	-2.5062 0.1374 -3.0365 -3.1358
		392 393 1377 1878 1879 1881	275.3 561.7 293.4 402.2 129.1 196.5	400.1 654.6 28.3 531.2 45.1 608.0	-2.4812 1.8592 -2.2343 -0.5547 -4.7413 -3.6976	0.5287 4.0961 -4.7074 2.3542 -4.5374 3.4373
10>04	J5344818	287 292 393 394 1878	738.0 233.6 409.1 564.3 251.0	654.2 377.5 249.9 532.6 116.1	-4.5344 -3.1123 -0.4645 1.9036 -2.3633	4.1644 0.2138 -1.5745 3.0789 -3.4626
13601	05330513	254 255 268 1858 1359	774.2 697.6 661.5 474.0 678.2	56.2 42.4 640.0 613.5 330.9	5.1801 3.9626 3.3668 0.5331 3.6039	-4.3139 -4.4943 3.9110 3.5044 -0.4524
10602	J53ช05ธ8	193 194 268 1349	432.4 506.5 492.4 126.5	445.2 626.8 211.0 256.5	-0.0999 1.0256 C.7944 -4.7464	1.1498 3.6944 -2.1231 -1.4998
* · · ·		1850 1856 1857 1858 1860 1863	256.0 322.6 301.7 637.6 776.2	60.1 509.2 317.4 172.4 527.6 77.4	-4.5237 -2.7749 -1.7661 -2.0977 2.9978 5.1937	-4.3096 2.0539 0.2101 -2.6633 2.3106 -4.0105

Rev/	DAS Reference	Point	Mean l Coord		Image Coor	dinates (mm)
Frame	Time		. X	Ÿ	^x o	y _o
·				·		
10603	05380658	167 190 193 194	484.4 213.7 262.0 332.0	625.6 328.3 16.7 201.2	0.6914 -3.4163 -2.7138 -1.6366	3.6766 -0.4764 -4.8852 -2.2564
		1856 1860 1861 1862 1364	78.5 470.0 467.3 313.9 723.0	82.5 103.3 309.8 512.0 654.3	-5.5164 0.4566 0.4198 -1.8932 4.3051	-4.0332 -3.6290 -0.7427 2.0898 4.1524
		1865 1866	725.9 507.2	420.2 444.7	4.3307 1.0305	0.8105 1.1408
10604	05380728	187 1864 1865 1866	312.6 555.0 565.1 342.1	214.1 254.4 14.1 31.7	-1.9298 1.7449 1.9238 -1.4928	-2.0752 -1.5177 -4.8806 -4.6480
10701	05416499	284 285 289 356	635.2 281.1 561.3 441.8	305.9 436.3 440.0 239.7	2.9524 -2.3960 1.3399 0.0214	-0.7814 -1.0424 1.0833 -1.6971
10702	05416568	286 289 290 293 390	673.7 405.4 453.9 208.0 395.0	430.1 6.7 672.8 512.3 452.9	3.5379 -0.5232 0.2271 -3.5053 -0.6668	0.9426 -4.9906 4.3416 2.0979 1.2598
		392 1875 1877 1879 1880 1886	642.6 803.3 612.7 443.4 278.7 287.9	657.4 156.5 286.7 333.5 466.7 211.1	3.0813 5.5719 2.6173 0.1337 -2.4290 -2.3044	4.1581 -2.8873 -1.0701 -0.4106 1.4587 -2.1190
10703	J5416638	286 290 291 292 294	530.5 299.1 336.5 550.1 220.6	10.1 250.4 662.0 625.7 420.7	1.3896 -2.1315 -1.5567 3.1911 -3.3098	-4.9344 -1.5678 4.1873 3.7069 -0.8176
		392 1878 1880 1881 1882	492.4 637.3 122.9 425.6 23.7	242.2 352.2 42.1 476.3 361.0	0.7945 2.9374 -4.3433 -0.2015 -6.3414	-1.6857 -0.1507 -4.5893 1.5853 -0.0408

Rev/	DAS Reference	Point	Mean Pixel Coordinates		Image Coor	Image Coordinates (mm)		
Frame	Time		X	Ÿ	^x o	y _o		
10703	05416638	1883	141.3	307.3	-4.5092	-0.7800		
10704	05416708	291	172.5	244.1	-4.0472	-1.6664		
		292	493.5	218.9	0.8113	-2.0095		
	·	393	662.6	50.7	3.4160	-4.3690		
		1881	270.2	61.7	-2.5837	-4.2323		
10802	05452548	192	327.7	607.5	-1.6877	3.4225		
		193	655.4	593.3	3.2658	3.2427		
		268	693.2	345.1	3.8365	-0.2508		
		269	492.6	135.4	0.7974	-3.1821		
		270	138.3	217.3	-4.5715	-2.0570		
•	1.	1849	297.4	454.8	-2.1451	1.4304		
		1850	291.9	257.5	-2.2390	-1.4712		
•		1851	167.5	407.6	-4.1173	0.6296		
		1859	572.4	25.1	3.5802	-4.7366		
10803	05452618	191	283.3	476.5	-2.3589	1.5943		
	1.	192	162.5	169.0	-4.2053	-2.7355		
	1	193	504.5	167.1	0.9771	-2.7382		
		194	593.6	347.8	2.4041	-0.2164		
		1849	138.8	27.8	-4.6017	-4.7924		
		1856	309.9	265.9	-1.9662	-1.3535		
	,"	1357	372.2	114.5	-1.0317	-3.4743		
	,	1860	733.5	222.2	4.4616	-1.9680		
	. •	1861	752.5	434.0	4.7349	1.0100		
	· .	1862	606.0	675.7	2.5302	4.4085		
		1866	306.6	562.0	5.5764	2.8557		
10804	05452688	187	639.5	354.9	3.0213	-0.1153		
		189	449.9	621.9	0.1681	3.6239		
•	·	190	329.4	79.2	-1.6824	-3.9751		
4		271	377.5	439.8	-0.9294	1.7754		
	1	1852	281.0	430.5	-2.3938	0.9522		
		1854	213.7	152.6	-3.4310	-2.9553		
	ľ	1855	274.1	310.1	-2.5031	-0.7329		
		1861	605.5	18.0	2.5468	-4.8290		
: .		1862	449.5	259.5	0.1464	-1.4450		
	•	1866	657.5	154.6	3.3067	-2.9134		
10306	05453808	255	702.9	666.4	3.9976	4.3114		
	1	256	787.8	417.0	5.2762	0.7700		
		. 257	500.0	629.7	0.9255	3.7286		
]	306	275.7	356.0	-2.4777	-0.0959		

Rev/	DAS Reference	Point	Mean F Coordi		Image Coor	dinates (mm)
Frame	Time		X	Ÿ	x _o	y _o
10306	05453808	359	. 70.0	586.1	-5.6826	3.1378
10,300	05455600	368	343.9	163.6	-1.4608	-2.7922
		382	58.5	316.2	-5.7953	-0.6795
		383	450.6	439.5	0.1733	1.0620
		384	725.2	459.5	4.3174	1.3583
10808	J5453878	257	801.7	518.5	5.4939	2.2267.
		305	637.9	681.6	3.0104	4.5012
÷		306	582.1	231.6	2.1541	-1.8415
		359 365	361.5 73.1	461.6 632.9	-1.1739	1.3789
	·	363	650.0	33.3	-5.6699 3.2300	3.8112
		382	361.1	179.5	-1.1979	-2.5653
		383	757.9	325.6	4.8231	-0.5190
10901	05488458	. 171	692.1	184.9	3.8338	-2.4962
		285	460.6	629.8	0.3301	3.7311
		289	766.7	571.2	4.9622	2.9646
		296	243.5	592.1	-2.9741	3.2102
		356	609.5	405.3	2.5685	0.5840
10903	05438598	213	37.5	486.3	-6.1518	1.7300
		214	139.3	612.7	-4.5947	3.5102
		236	746.6	94.4	4.7116	-3.7627
		290	534.2	334.1	1.4324	0.2922
		293	246.2	257.4	-2.9286	-1.4736
		294	463.2	579.7	0.3694	3.0316
		392 18 7 9	735.7 498.4	338.7 27.4	4.4836	-0.3344
,		1830	321.5	194.4	0.3964 -1.7952	-4.6934 -2.3536
		1881	687.8	594.4	3.7585	3.2727
		1882	240.2	557.2	-3.0132	2.7237
		1883	369.6	475.5	-1.0498	1.5760
		1884	93.3	300.2	-5.2542	-0.8909
10904	054 38668	291	437.4	400.2	-0.0282	0.5225
		292	774.0	310.1	5.0736	-0.7291
		294	301.4	161.3	-2.1026	-2.8185
		1831	530.5	184.8	1.3727	-2.4876
. •		1882	72.2	136.2	-5.6000	-3.2527
		1883	206.4	55.3	-3.5543	-4.3454
		1887	103.4	408.3	-5.0195	0.6357
11001	C5524508	147	369.5	304.6	-1.0616	-0.8146

Rev/	DAS Reference Time	Point	Mean Pixel Coordinates		Image Coordinates (mm)	
Frame	TIME		x	Ÿ	x _o	уо
				:		
1001	05324508	148	518.2	357.6	1.1903	-0.0820
		257	723.9	48.6	4.3748	-4.4117
	•	- 269	740.3	413.1	4.5576	0.7088
		270	369.7	562.1	-1.0470	2.7832
		305	661.9	174.4	3.3701	-2.6406
		365	395.7	311.7	-0.6648	-0.7165
		366	507.4	240.4	1.0219	-1.7157
1002	35524578	270	217.6	154.8	-3.3712	-2.7817
		1840	103.2	203.6	-5.1093	-2.1906
		1841	98.2	325.6	-5.1795	-0.5309
		1848	393.4	669.0	-0.6908	4.2837
		1849	427.8	391.4	-0.1745	0.3982
		1850	396.9	173.7	-0.6562	-2.5740
	,	1851	272.7	357.3	-2.5222	-0.0709
		1856	641.2	602.2	3.0525	3.3670
1003	05524648	190	728.7	461.5	4.3720	1.3937
	. ,	191	509.3.	469.3	1.0626	1.4829
		193	718.5	105.4	4.2671	-3.6069
		1845	155.7	503.0	-4.3043	1.9680
		1848	262.6	301.6	-2.6776	-0.8529
	•	1849	304.3	19.0	-2.0708	-4.3416
		1856	521.0	241.7	1.2289	-1.6965
		1857	570.4	73.6	1.9900	-4.0460
1004	J5524718	139	758.3	631.4	4.8471	3.8401
	,	190	598.8	77.1	2.4244	-3.9966
		191	373.7	76.9	-1.0091	-4.0043
		271	676.4	501.7	3.5786	1.9521
		27,2	237.8	312.3	-3.0523	-0.7029
		273	259.5	505.9	-2.7199	2.0061
		1846	142.7	598.3	-4.5356	3.3062
		1847	176.4	375.4	-3.9809	0.1800
		1852	572.3	453.0	2.0105	1.3264
		1853	297.2	161.0	-2.1663	-2.8256
		1854	482.5	177.6	0.5436	-2.5905
		1855	556.0	333.7	1.7612	-0.4141
		1862	739.7	246.7	4.5533	-1.6250
11305	J5524788 .	189	631.4	278.5	2.9018	-1.1829
		271	553.6	141.7	1.7247	-3.0916
11122	355.6.55					}
11132	J5560483	285	483.3	519.2	0.7456	2.1802

Rev/	DAS Reference	Point	Mean I Coordi		Image Coordinates (mm	
Frame	Time		X	Ÿ	x _o	y _o
11102	05560488	296	232.2	525.4	-3.1378	2.2759
		356 1886	627.1	270.5	2.8348	-1.2991
		1000	144.2	648.1	4.6275	4.0728
11103	J5560558	285	345.1	105.0	-1.4434	-3.6107
		293	580.9	594.0	2.1454	3.2411
		295.	201.4	664.2	-3-6405	4.2289
•		296	79.4	105.2	-5.4940	-3.7051
		1879	813.7	315.1	5.6830	-0.6550
•		1880	653.5	517.6	3.2337	2.1721
		1884	420.5	671.1	-0.2793	4.3140
		1885	376.7	392.1	-0.9433	0.4108
		1886	606.1	250.8	2.5171	-1.5724
	,	1890 1891	276.2	479.2 337.6	-2.4673	1.6317
		1893	107.4	578.4	-2.9395 -5.0817	-0.3481 3.0288
		1073	157.4	310.4	-5.0011	3.0200
11104	05560628	213	221.0	503.0	-3.3072	1.9666
		214	347.3	617.0	-1.3910	3.5547
	,	290	765.0	303.0	4.9356	-0.8321
		294	707.4	520.6	4.0457	2.2259
•		295	51.5	280.0	-5.9051	-1.1898
		293	445.4	219.1	0.0320	-2.0079
	1	1880	522.5	141.5	1.2514	-3.0953
		1882	459.4	538.4	0.3113	2.4521
		1883	597.7	428.7	2.3888	0.9170
:		1384 1885	279.0 239.4	290.6	-2.4311	-1.0072
	·	1889	90.0	537.4	-3.0593 -5.3368	-5.0095 2.4513
		1890	134.0	95.5	-4.6567	-3.8069
		1070	13.00	13.5	1.000	3.0007
11106	05560768	211	.73.7	113.5	-5.5783	-3.5855
		215	468.5	369.6	0.4402	0.0935
		. 291	608.5	33.2	2.5852	-4.6120
		297	289.9	261.6	-2.2634	-1.4117
		1104	311.1	233.9	-1.9512	-1.7986
		1105	325.2	310.3	-1.7304	-0.7289
		1105	383.1	245.2	-0.8595	-1.6411
		1837	245.8	91.8	-2.9502	-3.8111
11201	05596468	147	387.7	296.4	-0.7869	-0.9310
	32270408	148	553.9	319.8	1.7283	-0.6123
	<u> </u>	365	415.5	300.5	-0.3660	-0.8747
	<u></u>	557	1.2.00	1 200.	1	

Rev/	DAS		Mean I	and the second s		
Frame	Reference	Point	Coord	inates		dinates (mm
	Time		$\overline{\mathbf{x}}$	Y	x _o	yo
	·					
11202	05596538	182	113.4	497.3	-4.9576	1.7437
		192	581.6	451.6	2.1491	1.2355
		270	267.9	131.2	-2.6120	-3.2495
		277	269.9	513.5	-2.5638	2.1110
	,	1840	145.3	199.2	-4.4638	-2.3128
		1841	151.8	314.6	-4.3567	-0.6786
		1342	43.0	527.0	-6.0844	2.3064
•		1848	506.8	606.3	1.0298	3.4057
		1849	516.2	317.3	1.1582	-0.6432
		1350	458.0	112-8	0.2719	-3.4987
		1851	347.2	313.7	-1.3979	-0.6852
		1856	761.2	492.0	4.8644	1.8321
1203	-05596608	191	643.8	348.2	3.0408	-0.2105
		192	448.2	66.0	0.1251	-4.1519
		272	528.0	619.7	1.3502	3.5948
		277	125.1	123.5	-4.7834	-3.4029
	'	1845	267.9	450.6	-2.5921	1.2324
		1848	367.9	222.5	-1.0920	-1.9602
		1356	629.8	115.3	2.8924	-3.4640
11204	05596678	272	398.3	253.5	-0.6230	-1.3888
		1846	305.5	591.4	-2.0246	3.1981
		1847	337.4	341.6	-1.5441	-0.2933
		1852	752.5	356.4	4.7336	-0.0855
•		1853	447.3	91.8	0.1182	-3.7918
		1854	637.5	78.0	3.0176	-3.9359
		1855	.726.3	223.4	4.3505	-1.8822
1205	05596748	273	306.4	119.5	-2.0301	-3.4089
		274	249.3	452.8	-2.3741	1.2652
	}	1060	146.1	354.7	-4.4446	-0.1126
•		1061	277.4	401.3	-2.4490	0.5448
1228	05599263	378	632.5	644.6	2.9305	3.9697
		1199	393.1	559.4	-0.6916	2.7463
]	2204	207.1	499.5	-3.5173	1.9158
		2206	158.3	494.9	-4.2631	1.8526
		2207	144.3	356.6	-4.4724	-0.0881
1302	05632588	285	450.4	77.1	0.3108	-4.0022
_		293	767.8	532.0	4.9720	2.4040
		295	357.4	678.7	-1.2411	4.4212
-		296	159.4	126.1	-4.2555	-3.3495
	I			1		1 3 3 3

Rev/	DAS Reference	Point	Mean P Coordi		Image Coor	dinates (mm)
Frame	Time		X	Ÿ	^x o	y _o .
11302	05632588	1884	604.1	640.4	2.4978	3.3976
11302,	0,052,788	1885	528.0	362.5	1.3335	-0.0148
,		1886	754.4	181.7	4.7914	-2.5402
		1890	425.5	470.1	-0.2032	1.4951
		1891	376.4	328.6	-0.9549	-0.4799
		1892	100.5	235.1	5.1473	-1.8156
		1893	242.9	607.8	-2.9845	3.4314
11303	05632658	212	148.4	633.2	-4.4854	4.5150
		213	423.9	495.4 594.4	-0.2269	1.8509
•		293	569.5 641.0	156.0	1.9754 3.0535	3.2452 -2.3947
		295	214.3	290.8	-3.4115	-1.0067
		299	170.4	507.0	-4.0808	2.0235
		1880	711.9	64.8	4.1768	-4.1782
		1882	636.5	487.0	3.7318	1.7460
		1883	319.7	347.8	5.7708	-0.1932
		1884	471.3	261.5	0.4753	-1.4183
		1889	277.5	561.2	-2.4500	2.7775
		1890	291.3	79.1	-2.2634	-3.9827
		1893	97.2	216.2	-5.2033	-2.0843
11304	05632728	211	469.7	484.6	0.4646	1.6986
		213	305.7	132.6	-2.0401	-3.2243
		214	451.4	237.5	0.1734	-1.7520
		297	703.0	603.1	4.0677	3.4058
•		298 299	232.9	491.0	-3.1256	1.7984
•		1887	43.6 645.9	145.2	-6.0432 3.1171	-3.1427 0.9775
		1888	258.6	376.6	-2.7351	0.1995
		1889	150.3	197.3	~ -4.3874	-2.3366
11305	05632798	209	107.5	330.3	-5.0377	-0.4619
		211	354.3	134.9	-1.3028	-3.1880
		215	777.3	346.4	5.1262	-0.2218
		297	590.8	262.9	2.2865	-1.4027
_		298	109.7	138.1	-5.0153	-3.1998
. .		1104	512.8	230.0	2.6204	_1.8617
		1105	631.2	309.8	2.8974	-0.7467
		1106	687.0	228.1	3.7494	-1.8875
		1887	535.0	85.9	1.4461	-3.8731
11308	05633918	166	417.1	682.2	-0.3317	4.4684
		167	258.2	540.9	-2.7427	2.4914

Rev/	DAS Reference	Point	Mean F Coordi		1 .	dinates (mm
Frame	Time		X	Ÿ	x _o	y _o
-		·				·
11303	05533918	258	83.7	134.2	-5.4204	-3.2805
11401	05668498	147	440.0	279.5	0.0035	-1.1701
		148 149	623.8	273.5	2.7860 -2.3354	-1.2605 -1.1288
		198	185.0	436.4	-3.3516	1.0316
		232	72.6	338.8	-5.5745	-0.3505
	·	365	471.7	278.8	0.4831	-1:1810
		366	578.3	172.3	2.0983	-2.6712
11402	05668568	182	237.4	509.1	-3.0575	2.0498
•		270 277	371.6	118.5	-1.0407	-3.4207
		1340	415.4	508.2 207.7	-0.3547 -2.9984	2.0290 -2.1762
		1841	262.1	326.2	-2.6839	-0.5092
		1842	157.5	567.4	-4.2879	2.8679
•		1846	682.3	559.7	3.6699	2.7720
	·	1349	660.5	263.5	3.3429	-1.3966
•		1350 1851	573.3° 478.7	68.3	2.0425 0.5900	-4.1227 -1.0328
	65448470					
11403	05668638	182 272	105.3 768.5	139.8	-5.0829 4.9905	-3.1791 3.2282
		277	292.3	137.9	-2.2422	-3.1520
		1842	21.4	197.5	-6.3849	-2.3939
		1343	143.8	414.5	-4.4021	0.7241
		1845	476.4	457.7	0.5650	1.3209
		1847	715.1	677.6	4.1902	4.4928
·		1848	563.2	200.9	1.8630	-2.2677
11404	C5668708	272	642.6	229.0	3.0715	-1.8784
		273	689.3	439.7	3.7751	1.0771
		275	323.4	492.1	-1.7435	1.8095
•		1339	69.5	459.4	-5.6332 -2.1404	1.3485
		1844 1846	296.7 562.5	322 . 7 595 . 6	-2.1604 1.8706	-0.5572 3.2604
		1847	586.0	323.3	2.2143	-0.5604
		1853	680.1	41.6	3.6926	-4.5038
11405	05663778	273	565.7	84.5	1.9119	-3.8778
		274	509.5	457.0	1.0651	1.3158
		1060	403.7	369.6	-0.5411	0.1044
		1051	546.6	401.3	1.5136	0.5374

Rev/	DAS Reference	Point	Mean I Coordi		_	dinates (mm)
Frame	Time		\overline{x}	Ÿ	x _o	y _o
11501	05704478	296	344.5	507.0	-1.4298	2.0143
		304	193.6	538.9	-3.7238	2.4693
		313	225.4	357.4	-3.2381	-0.0710
11502	05704548	295	477.4	612.7	0.5850	3.4939
	:	29ő	206.4	98.2	-3.5496	-3.7322
•		304	52.3	130.9	-5.9152	-3.3470
٠.		1835	622.3	264.6	2.7624	-1.3824
		1890	527.6	389.2	1.3325	0.3617
		1891	460.6	258.9	0.3135	-1.4558
	. ,	1892	155.0	215.8	-4.3173	-2.0740
		1893	347.1	562.6	-1.3991	2.7931
		1894	174.3	378.1	-4.0061	0.2173
11504	05704688	208	135.5	453.0	-4.6095	1.2632
		209	412.2	639.0	-0.4041	3.3599
		211	641.3	377.6	3.0435	0.2031
		212	148.7	290.8	-4.4061	-1.0151
		213	443.2	37.8	0.0430	-4.5479
		214	601.6	122.4	2.4587	-3.3622
		298	397.5	428.5	-0.6299	0.9178
		299	167.9	97.7	-4.1344	-3.7505
		1387	812.1	291.5	5.6645	-0.9857
		1888	415.2	301.7	-0.3701	-0.8548 -3.2300
	·	1889	283.7	132.3	-2.2981	-3.2300
11505	- 05704758	209	266.6	259.4	-2.6217	-1.4435
	,	297	749.7	99.7	4.7554	-3.6862
•		298	258.1	49.2	-2.7679	-4.4162
•		1104	768.7	59.9	5.0862	-4.2546
	{	1105	792.5	140.3	5.4094	-3.1136
11602	05740598	182	394.3	490.5	-0.6746	1.7815
7		270	493.6	70.1	0.8157	-4.0974
		277	586.9	457.2	2.2296	1.3137
		281	181.1	536.7	-3.9206	2.4363
		282	196.5	238.0	-3.6802	-1.0512
•		1835	116.8	181.6	-4.3997	-2.5723
		1836	90.7	450.8	-5.3045	1.3682
	·	1840	366.9	180.3	-1.1102	-2.5537
		1341	401.7	297.5	-0.5745	-0.9158
•		1842	309•3	566.4	-1.9654	2.8468
11603	J574J668	182	264.3	102.7	-2.5688	-3.6543

Rev/	DAS Reference	Point	Mean P Coordi		Image Coor	dinates (mm)
Frame	Time		x	Ÿ	x _o	уо
	·					
11603	05740668	183	52.9	371.4	-5.3828	0.1077
• .		276	430.7	518.2	-0.1232	2.1681
·		277	463.3	73.7	0.3550	-4.0452
	'	281	44.1	149.0	-6.0394	-3.0885
		1837 1843	166.0	481.9	-4.1437 -1.5816	1.6709
		1845	691.6	385.5 372.1	3.8105	0.3199
		1848	753.7	93.7	4.8240	-3.7756
	057/0700	275	505 1		2 2024	
11604	05740738	275 276	585.1 314.4	460.3 163.4	2.2026 -1.9063	1.3579
•		278	219.0	619.4	-3.3543	3.5944
*.		280	125.3	340.5	-4.7645	-0.3175
		1337	44.8	125.0	-6.0313	-3.4401
		1838	33.5	416.3	-6.1942	0.7398
4		1839	309.6	472.7	-1.9598	1.5392
		1844	547.7	283.2	1.6337	-1.1201
11605	05740803	274	803.8	399.5	5.5230	0.5342
		275	465.1	100.4	0.3807	-3.6709
	100	278	82.7	247.8	-5.4139	-1.6392
		1060	692.6	323.7	3.8231	-0.5495
11606	05741858	66	200.9	654.9	-3.6514	4.0361
	·	160	125.8	570.1	-4.7893	2.8971
		176	272.1	512.2	-2.5348	2.0807
		177	447.0	645.8	0.1198	3.9465
11608	05741928	66	324.5	685.4	-1.7450	4.5119
		138	114.3	591.9	-4.9836	3.2139
		160	241.7	597.9	-3.0027	3.2885
		176	394.5	539.9	-0.6719	2.4696
		177	576.9	677.8	2.0906	4.4282
	,	223	36.7	302.4	-6.1353	-0.8839
11610	J5741998,	66	377.4	678.3	-0.9376	4.4071
		138	156.1	572.2	-4.3139	2.9261
		160	292.4	5.32.6.9	22258 -	3.071.0
		176 177	450.8	531.0	0.1798 3.0120	2.3391
		223	638.0	631.6 269.3	-5.5866	-1.3503
			·			
11702	05776508	296	447.0	493.4	0.1203	1.3171
		304	282.3	553.8	-2.3738	2.6702

Rev/ Frame	DAS Reference	Point	Mean I Coordi		Image Coor	dinates (mm)
rrame	Time		X	Ÿ	x _o	уо
11702	05776508	313	295.0	368.3	-2.1860	0.0798
	03110300	1891	7.33.4	597.8	4.4521	3.3305
•		1892	409.0	620.0	-0.4553	3.5897
		1900	214.0	650.0	-3.4458	4.0241
11704	05776643	200	74.3	606.8	-5.6152	3.4361
		212	514.6	659.7	1.1463	4.1599
•		213	790.9	344.0	5.3254	-0.2561
		295	527.9	204.1	1.3309	-2.2224
•		299	516.6	452.6	1.1702	1.2483
•		300	240.7	344.6	-3.0072	-0.2493
		301 1888	221.3 769.3	504.9	-3.3022	1.9927
	1	1889	645.5	468.7	5.3132 3.1112	3.6066 1.4784
		1893	381.4	169.6	-0.8915	-2.7014
•		1897	44.7	446.4	-6.0207	1.1651
11705	05776718	208	378.0	465.2	-0.9229	1.4314
20,00	, , , , , , ,	209	678.1	616.2	3.6126	3.5788
		210	390.9	665.3	-0.7284	4.2316
		212	385.4	285.8	-0.8218	-1.0763
	,	298	655.2	394.5	3.2578	0.4400
	•	299	394.9	76.5	-0.6872	-4.0083
		301	88.9	127.3	-5.3391	-3.3725
		1888	568.0	255.4	3.4562	-1.5084
		1889	525.3	95.4	1.2972	-3.7404
		1895 1896	261.6	276.1 343.9	-2.6946 -5.1205	-1.2105 -0.2713
11706	05776738	208	255.1	94.4	-2.8095	-3.7726
٠	•	209	553.4	254.0	1.7188	-1.5251
		210	261.1	293.4	-2.7007	-0.9663
		298	533.5	28.2	1.5092	-4.6831
11801	05812488	168	285.3	631.8	-2.3359	4.4653
		193	338.9	363.4	-0.7649	0.0063
•		232	219.5	323.3	-3.3293	-0.5498
		270	780.3	321.4	5.1678	-0.5799
		282	509.2	532.1	1.3665	3.0626
		33∂ 365	340.3 674.3	622.2	-1.4893 3.5707	3.6247
11302	C5312558	165	127.6	280.7	-4.1266	
11.000	00012000	180	211.1	657.7	-3.4830	-1.1599 4.1359
		100	T -11	1 00101	-3.4030	7.1399

	DAS	Point	Mean P Coordi		Imaga Caar	dinates (m
Rev/	Reference Time	Point		_ 	Illage Cool	dinates (m
frame .	11me		X	Ÿ	x _o	уо
	15.11.25.50	182	594.3	352.1	2.3391	-0.1581
11302	(5312558)	183	407.5	661.2	-0.4764	4.1738
	,	277	785.7	285.5	5.2583	-1.0783
		281	371.4	437.3	-1.0248	1.0413
		282	362.3	184.0	-1.1795	-2.5009
		337	145.5	386.4	-4.4509	0.3315
		338	186.2	219.0	-3.8399	-2.0217
•	}	1829	45.5	225.5	-5.9939	-1.9706
		1833	272.7	516.6	-2.5210	2.1538
		1835	263.5	93.5	-2.6820	-3.7858
		1836	264.6	378.6	-2.6433	0.2263
		1840	527.7	49.7	1.3400	-4.3825
		1841	578.9	158.4	2.1081	-2.8636
		1842	511.2	442.3	1.0895	1.1043
	1	1843	699.6	614.5	3.9409	3.5627
1303	05312628	150	50.0	546.5	-5.9821	2.5848
		180	64.4	290.1	-5.7033	-1.0407
		181	256.4	615.8	-2.6258	3.5424
		183	269.7	294.4	-2.5708	-0.9536
		276	685.6	375.1	3.7193	0.1695
		283	511.3	595.0	1.1060	3.2613
	}	281	235.7	66.0	-3.1061	-4.1818
		283	63.5	395.6	-5.7212 -3.7200	0.4530
		1330 1833 /-	194.3 136.3	418.7	-3.7090 -4.6045	0.7370 -3.0597
		1837	401.6	387.4	-0.5708	0.3438
		1839	710.3	689.5	4.1206	4.667
		1843	570.4	256.7	1.7766	-1.4900
1304	05312698	131	123.0	243.0	-4.8033	-1.6933
		273	489.1	505.1	0.7598	1.9853
	1	279	259.1	480.9	-2.7264	1.6585
	· 	280	373.6	224.6	-1.3059	-1.9302
		803	215.0	635.0	3.4189	3.8167
	1	1837	263.5	11.9	-2.6176	-4.9547
		1338	277.3	323.6	-2.4587	-0.5424
		1339	575.0.	330.6	2.0477	-0.4579
30د 1	J5812768	278	355.9	137.4	-1.2789	-3.1504
		279	113.2	109.3	-4.3953	-3.6136
		303	64.0	262.5	-5.7099	-1.4324
		304	106.6	342.2	-5.0523	0.2924

Rev/	DAS Reference	Point	Mean I		Image Coor	dinates (mm
11	Time		\overline{x}	Ÿ	x _o	y _o
11901	05348538	166	280.3	263.2	-2.4080	-1.3983
		167	196.5	262.5	-3.6816	-1.4144
		240	536.1	43.7	1.4634	-4.4743
		296	666.9	407.8	3.4329	0.6184
•		304	491.4	497.6	0.7910	1.8713
	1	312	244.3	662.9	-2.9768	4.1994
	1.	313	481.1	310.3	0.6257	-0.7462
		36 3	680.6	200.0	3.6509	-2.2913
11902	05848508	201	332-8	643.6	-1.6130	3.9219
	•	202	195.3	441.1	-3.6957	1.0954
		300	675.8	609.9	3.5802	3.4826
		304	341.0	74.7	-1.5079	-4.0473
	i.	307	425.0	490.5	-0.2093	1.7759
		1892	493.2	123.6	0.8071	-3.3554
		1893	757.8	405.3	5.4334	0.6052
		1894 1930	554.6	281.0	1.7386 -2.5755	-1.1582
	, ·	1901	270.2 151.2	185.6	-4.4028	-2.4892 -4.3082
		1903	80.3	523.0	-5.4771	2.2433
11903	05848678	200	375.2	540.7	-0.9636	2.4795
]	201	187.8	253.6	-3.8133	-1.5411
	-	.300	544.1	229.9	1.5780	-1.8704
		301	535.3	402.4	1.4502	0.5397
		303	213.5	500.5	-3.4224	1.9251
		308	147.6	623.4	-4.4681	3.6550
		1893	670.2	24.7	3.5474	-4.7506
i		1897	333.4	374.4	-1.6048	0.1594
11904	C5848748	200	247.1	175.4	-2.9252	-2.6334
	, i	205	204.5	681.6	-3.5960	4.4734
		206	86.9	512.4	-5.3729	2.0936
		207	533.0	434.4	1.4159	0.9910
	İ	208	747.5	353.3	4.6623	-0.1345
		210	766.6	563.1	4.9574	2.8506
		212	742.0	161.2	4.6058	-2.8278
		301	414.8	39.0	-0.3850	-4.5421
		303	78.3	136.9	-5.4989	-3.2453
,		310	341.7	503.2	-1.4732	1.9603
		1895	612.7	171.3	2.6197	-2.6876
		1896	446.3	270.8	0.0975	-1.2931
		1898 1899	93.7 269.3	323.4	-5.2505 -2.5735	-0.5669 0.3596
	<u> </u>	1033	207.3	338.4	-2.5133	0.5576

Rev/	DAS Reference	Point	Mean P Coordi		Image Coor	dinates (mm
Frame	Time		X	Ÿ	x _o	уо
11905	05348818	205	63.4	325.0	-5.7183	-0.5494
		207	414.1	34.5	-0.3956	-3.8984
	Ì	208	633.3	9.9	2.9739	-4.9516
•		210	646.0	224.0 378.9	-2.1147	-1.9511
	·	920 922	299.6 109.8	273.2	-5.0008	0.2281
		923	270.5	426.4	-2.5532	0.8926
12001	05334518	49	213.8	379.4	-3.4128	0.2367
		66	196.0	291.0	-3.6378	-1.0066
•	1	149	434.3	452.2	-0.0712	1.3827
•		161	207.6	350.8	-3.5078	-0.1636
	, .	198	376.9	650.0	-0.9419	4.0121
	,	229	107.3	602.6	-5.0991	3.3717
		232	182.5	643.1	-3.9306	3.9329
		233 365	99•5 649•9	481.9 363.5	-5.1702 3.1765	1.6679
12002	05834588	168	438.9	601.5	0.0020	3.3374
		198	523.6	252.2	1.2697	-1.5482
		229	240.2	198.9	-3.0249	-2.2947
		232	320.4	240.7	-1.8093	-1.7034
		282	690.6	456.1	3.7951	1.3096
	·	338	500.3	526.9	0.9238	2.2909
	'	342	242.6	675.0	-3.0027	4.3788
		347	79.3	508.1	-5.4901	2.0400
		1824	231.0	426.4 556.4	-3.1508 -1.5276	0.8988 2.7090
		1829 1835	333.0 569.8	383.9	1.9635	0.2881
12003	J5384658	1827	134.0	360.0	-3.8703	-0.0462
	}	1828	101.6	519.6	-5.1458	2.1862
		1830	559.6	527.3	1.8229	3.6983
	ĺ	1832	210.3	453.5	-3.4716	1.2637
		1833 1837	463.9 783.0	350.1 551.0	0.3628 5.2032	-0.1918 2.6779
12004	05834728	150	201.7	350.2	-3.5979	-0.1755
		181	461.2 449.8	35.9	0.3309 0.1498	0.3242 -4.5829
		183 279	621.4	618.1	2.7555	3.5833
		283	216.8	181.3	-3.3814	-2.5538
	,	331	401.0	608.2	-0.5749	3.4261
		335	98.6	611.5	-5.2411	3.4954

Rev/ Frame	DAS Reference	Mean Pixel Point Coordinates		Image Coordinates (mm)		
rrame	Time	. , .	x	Ÿ	^x o	уо
12004	05884728	1830	372.3	182.5	-1.0286	-2.5262
	,	1331	263.2	484.1	-2.6657	1.6965
•	•	1334	97.7	341.2	-5.1900	-0.3152
		1837	604.2	115.8	2.5005	-3.4633
		1838'	636.1	445.1	2.9685	1.1854
12005	05384798	273	683.1	105.9	3.6953	-2.7616
•		279	434.1	174.3	-0.0911	-2.6406
		331 800	208.4	158.9 387.2	-3.5111	-2.8722
		803	378.4	353.1	-3.3215 -0.9237	0.3442
		804	418.9	431.4	-0.3058	0.9550
•	. ∰	861	461.3	384.1	0.3329	0.2916
12103	05886548	296	757.0	241.2	4.8183	-1.7017
		304	579.1	358.5	2.1084	-0.0670
		312	316.0	571.8	-1.8636	2.9253
,	·	313	543.2	172.9	1.5645	-2.6573
		1892	747.0	377.2	4.6521	0.2051
		1900	517.2	481.2	1.1818	1.6498
•		1901	372.5	374.4	-1.0122	0.1654
12104	05920638	201	462.5	452.9	0.3546	1.2573
		202	29).6	264.3	-2.2570	-1.3729
	-	203	142.2	499.2	-4.5121	1.9183
		307 309	552.3 316.6	276.9 595.0	1.7035	-1.2054
		312	132.7	82.6	-1.8557 -4.6774	3.2511 -3.9892
		1894	667.6	41.2	3.4990	-4.5060
		1897	630.2	549.6	2.8862	2.6217
		1903	162.3	374.0	-4.1949	0.1641
		1904	84.0	305.3	-5.3970	-0.8165
12105	05 92 0 7 0 8	200	522.4	246.9	1.2501	-1.6197
		204	7.5 • 3	391.0	-5.5345	0.3925
		206	370.8	639.7	-1.0339	3.8735
		301	680.3	74.7	3.6816	-4.0331
-		303	339.2	233.7	-1.5252	-1.7999
		308 309	269.1	378.7 115.2	-2.5750	0.2325
		310	141.3 645.6	576.5	-4.5354 3.1174	-3.5088 3.0072
•		1896	736.3	311.8	4.4996	-0.7113
		1897	464.7	76.1	0.3763	-4.3072
		1898	372.4	435.5	-1.0099	1.0206

Rev/	DAS Reference	Point	Mean F Coordi	ixel nates	Image Coor	dinates (mm)
Frame	Time		. X	Ÿ	x _o	у
12105	05920708	1899	562.7	466.5	1.8660	1.4472
12106	J5920778	205 206	314.1 132.3	338.3 175.6	-1.8965 -2.9035	-0.3317 -2.6313
		310 920	465.2 563.7	118.6 352.7	0.3811 1.3772	-3.4102 -0.1417
		921 922 923	337.4 361.8 533.9	371.7 275.9 411.8	-1.5429 -1.1795 1.4272	0.1343 -1.2079 0.6862
12109	C5 921898	295 304	531.2 227.0	449.9 495.1	1.3908 -3.2148	1.2181
	,	313	265.2	148.2	-2.6363	1.3615
12201	J5 956478	49 229 232	237•2 148•1 238•2	364.1 597.4 621.0	-3.0599 -4.4496 -3.0599	0.0225 3.2924 3.6152
12202	05)56548	168 229	536.8 266.5	569.3 211.7	1.4823 -2.6274	2.8871 -2.1124
		232 282 337	362.0 784.8 536.0	236.1 392.5 667.3	-1.1796 5.2317 2.2281	-1.7686 0.2865 4.2807
		338 342 347	593.2 327.6 124.8	484.4 682.6 550.2	2.3266 -1.6957 -4.7866	1.6968 4.4773 2.6324
		1824 1829	288.5 420.7	434.2 543.7	-2.2300 -0.2735	1.0050 2.5274
		1835 1836	649.8 724.7	332.6 608.8	3.1772 4.3229	-0.4291 3.4916
12203	J5956618 -	168 180 133	356.0 537.9 773.9	1 J6 • 5 479 • 0 405 • 4	-1.2782 1.4949 5.0653	-3.5873 1.6196 0.6101
		281 283	685.1 555.3	179.3 597.4	3.7235 1.7625	-2.5631 3.2865
		336 337 338	362.9 405.7 414.4	654.8 209.5 20.0	-1.1538 -0.5206 0.3910	4.0845 -2.1413 -4.8020
•	·	1827 1828 1830	290.8 203.3 714.3	361.3 544.9 567.6	-2.2478 -3.5047 4.1570	-0.0129 2.5548 2.8981
		1832 · 1833	324.3 587.1	454.2 301.2	-1.7303 2.2301	1.2830

Rev/ Frame	DAS Reference	Point	Mean F Coordi		Image Coor	dinates (mm)
TTame	Time		X	Ÿ	x _o	yo
12203	05956618	1836	548.7	155.4	1.6436	-2.9023
12204	05956688	150	387.3	324.2	-0.7852	-0.5066
		153	320.7	497.4	-1.7825	1.9447
]	180	3.76.4	22.9	-0.9547 3.3966	-4.7873
		131 283	664.4 391.5	316.6	-0.7339	-0.6113 -3.0552
		331	617.4	561.5	2.6942	2.8696
		335	286.6	630.6	-2.2799	3.8309
,		336	190.2	198.7	-3.7697	-2.3052
		1825	167.5	566.2	-4.1205	2.9199
·.	·	1826	52.5	400.1	-5.8776	0.5498
		1830	553.7	119.6	1.7270	-3.4004
		1831	463.0	455.8	0.3661	1.3532
		1834	275.5	337.2	-2.4713	-0.3212
		1837	774.6	15.5	5.2116	-4.9091
12205	05956758	279	676.4	75.4	3.6208	-4.0218
12,200	05750750	331	446.7	96.6	0.1010	-3.7198
		33.9	227.2	329.5	-3.2111	-0.4564
		\800	465.3	346.7	0.3988	-0.2237
		801	410.7	339.6	-0.4351	-0.3198
	,	803	631.4	276.9	2.9015	-1.2035
-		804	670.4	355.4	3.5810	-0.1011
	:	805	497.0	427.0	0.8750	0.8980
		861	716.4	~293•2 .	4.1901	-0.9725
12301	J5992458	166	209.3	535.5	-3.4894	2.4196
		167	108.4	559.9	-5.0612	2.9093
•		296	673.6	527.8	3.6110	2.3123
		304	515.2	667.6	1.1569	4.2687
		313	451.1	504.6	0.1832	1.9736
12302	05992529	166	349 . 3	135.9	-1.3710	-3.1743
12372	03992329	167	242.3	170.0	-2.9877	-2.7026
	·	304	670.3	276.7	3.4914	-1.2115
		312	412.4	535.6	-0.3990	2.4140
		313	603.8	136.1	2.4958	-3.5933
		317	243.2	592.0	-2.9769	3.2111
		1900	621.8	406.0	2.1532	0.5979
		1901	450.0	329.5	0.1585	-0.4681
12303	25002500	201	641.0	377.2	3.0453	0.1955
12303	05992598	201 202	436.3	215.0	-0.0553	-2.0657
_		202	470.3	21,000	-0.000	2.005

Rev/ Frame	DAS Reference Time	Point	Mean Pixel Coordinates		Image Coordinates (mm)	
			· x	Ÿ	x _o	y _o
,						
12303	Ç5992593	203	297.7	484.1	-2.1396	1.7010
		307	712.9	131.5	4.1510	-2.5393
•		309	497.4	550.1	0.3879	2.6160
•		312	244.5	56.2	-2.9735	-4.3178
		315	261.0	595.5	-2.7040	3.2594
	1	317	67.9	113.5	-5.6713	-3.5879 3.9739
•	 	318 1902	60.7	643.2 394.0	-5.8867 -5.0145	0.4348
		1903	307.1	351.4	-2.0008	-0.1524
		1904	215.2	294.1	-3.3957	-0.9580
		.1904	21,06	294.1	- 3. 3, 3, 3,	-0.7500
12305	05992738	205	561.2	326.0	1.8407	-0.5183
12307	05/72/30	206	421.5	170.1	-0.2810	-2.6915
•	ł	310	706.3	61.2	4.0919	-4.2267
	· ·	314	116.2	226.5	-4.9079	-1.9285
		921	587.8	357.7	2.2417	-0.0740
		922	611.0	245.2	2.5932	-1.6473
		923	787.2	351.6	5.2694	-0.0024
12402	J6J28508	150	421.5	150.5	-0.2326	-2.9691
	· ·	153	373.5	340.4	-0.9976	-0.3111
,		181	688.6	95.9	3.8052	-3.7385
•		331	671.5	355.2	3.5063	-0.1100
		335	351.8	487.0	-1.3136 -3.4528	1.7380
•		336 339	212.9 483.6	61.8 643.9	0.7542	3.9341
*		340	164.2	562.1	-4.1830	2.7965
	,	800	722.6	609.7	4.2916	3.5056
	}	801	663.5	614.4	3.3920	3.5480
•	i .	1818	41.2	410.0	-6.0719	0.6546
		1826	90.3	293.3	-5.3003	-0.9877
	ļ	1834	312.2	183.4	-1.9378	-2.5085
12405	05028718	150	736.4	306.1	4.4964	-0.7910
		153	675.6	504.1	3.5680	1.9875 /
		283	723.4	113.0	4.3405	-3.4980
	ļ	335	644.6	652•8	3.1128	4.0946
	1	336	512.9	205.0	1.1070	-2.2050
		341	108.2	2)9.0	-5.0316	-2.1802
	·	1813	306.0	565.5	-2.0146	2.8388
		1819	215.9	316.3	-3.3829	-0.6443
		1820	96.7	.438.8	-5.2052	1.0657
		1825	507.4	508.0	1.0402	3.4327
•	1	1826	369.8	446.9	-1.0477	1.1790

Rev/ Frame	DAS Reference Time	Point	Mean Pixel Coordinates		Image Coordinates (mm)	
			x	Ÿ	x _o	y _o
12405	J6028718	1834	617.2	339.6	2.6864	-0.3282
12408	06029838	176	593.9	521.2	2.3402	2.2118
		223	85.9	502.6	-5.3689	1.9539
12501	06064418	204	194.5	217.0	-3.7156	-2.0495
		206	542.5	370.5	1.5562	0.0971
		308	391.7	126.3	-0.7359	-3.3111
•	•	314	260.6	493.2	-2.7043	1.8277
•		1898	503.9	149.1	0.9678	-2.9943
	,	1899	690.8	114.7	3.8274	-3.4790
		1906	115.1	354.3	-4.9214	-0.1237
12503	05064558	303	655.5	64.6	3.3106	-4.1776
		315	170.4	102.5	-4.0871	-3.6832
12505	06064698	203	421.3	49.3	-0.2762	-4.3874
		204	621.1	430.6	2.7431	0.9456
		309	651.3	92.3	3.2263	-3.7841
		315	381.3	177.7	-0.8909	-2.5846
		1905	311.3	340.7	-1.9332	-0.3008
	·	1906	520.2	568.9	1.2324	2.3836
		1908	62.8	619.4	-5.8236	3.6275
12501	06100328	49	323.8	273.2	-1.7560	-1.1857
		66	263.2	225.6	-2.6780	-1.9229
		. 70	98•2	420.8	-5.1807	0.8096
		161	304.0	261.6	-2.0573	-1.4174
		162	36.7	475.0	-5.3701	1.5691
		229	291.6	511.9	-2.2341	2.0853
		232	403.1	494.8	-0.5424	1.8384
		233	229.4	421.3	-3.1763	0.8221
		357	98•2	581.5	-5.2288	3.0750
		367	40.9	495.1	-6.1008	1.8548
12602	05100398	168	718.8	415.6	4.2204	0.7386
		229	324.2	194.4	-1.7574	-2.4947
		232	438.4	170.3	-0.0265	-2.6939
		338	757.8	316.9	4.9216	-0.6442
		342	514.9	603.4	1.1527	3.3635
]	347	243.5	560.5	-2.9677	2.7694
•		1316	109.•7	531.3	-5.0156	2.3643
		1824	410.4	378.4	-0.4385	0.2162
		1829	587.0	431.6	2.2230	0.9527

Rev/	DAS Reference	Point	Mean F Coordi		Image Coor	dinates (mm
Frame	Time		X	Ÿ	x _o	уо
12602-	J6100398	1835	769.3	162.3	5.0333	-2.8046
12302	. 33100370	1033	, , , , ,	102.0	1	2.0010
12503	36100463	336	695.8	493.2	3.8731	1.8333
	,	337	635.7	30.2	3.0078	-4.6624
		341	302.7	580.9	-2.0655	3.0519
		342	349.4	133.6	-1.3783	-3.2083
		346	77.3	559.8	-5.5495	2.7713
		1819	424.4	605.4	-0.2186	4.2476
	_	1821	298.4	246.5	-2.1423	-1.6255
		1322	191.9	436.3	-3.7454	1.0343
•	;	1827	554.4	219.3	1.7333	-2.0116
	. '	1328	502.7	440.2	0.9618	1.0756
		1332	. 512.6	300.3	2.6154	-0.8761
		1934	809.7	599.8	5.6376	3.4081
12004	06100538	150	759.8	111.0	4.9090	-3.5317
<i>.</i> • •		153	725.7	321.2	4.3319	-0.5827
		335	712.5	483.0	4.1266	1.6946
		336	534.3	45.9	1.4414	-4.4335
	· ·	340	510.4	600.4	1.0854	3.3246
	<u> </u> .	341	129.8	126.2	-4.7108	-3.3586
•		343	110.7	618.0	-5.0430	3.5914
		1818	365.3	453.4	-1.1163	1.2687
		1819	249.8	214.4	-2.8738	-2.0772
		1820	139.2	365.7	-4.5658	0.0425
	<u>,</u>	1825	571.9	463.2	2.0047	1.3570
		1826	418.5	317.0	-0.3177	-0.6404
• .		1834	551.5	163.6	3.2135	-2.7892
12635	J61 J06 J8	335	536.6	15.8	1.4835	-4.3563
]	339	673.9	169.1	3.6313	-2.7102
•		340	329.2	127.3	-1.6838	-3.2948
	·	344	162.8	401.5	-4.1867	0.5485
•		345	446.6	403.7	0.1125	0.5728
		385	597.0	308.3	2.3804	-0.7665
		336	449.3	288.6	0.1457	-1.0362
		887	498.2	469.7	0.8958	1.4931
12702	J6136378	166	436.5	34.9	-0.0544	-3.7497
		167	322.8	154.0	-1.7731	-2.7817
		243	187.3	531.8	-3.8339	3.0699
		312	618.4	437.2	2.7014	1.0327
		258	60.7	235.4	-5.7609	-1.8060
		317	437.5	558.7	-0.0194	2.7337

Rev/	DAS Reference	Point	Mean P Coordi		Image Coor	dinates (mm)
Frame	Time	,	x	Y	x _o	у
						<u> </u>
12702	06136378	1900	803.0	247.7	-5.5307	-1.6092
	·	1901	503.3	233.2	2.4755	-1.3214
	•	1903	763.6	685.6	4.8882	4.6443
•		1904	646.8	674.2	3.1462	4.3949
12703	06136443	203	608.2	361.3	2.5490	-0.0297
		249	77.7	347.0	-5.4956	-0.2319
		315	587.3	493.7	2.2387	1.8260
		317	258.6	73.0	-2.7590	-4.0785
		318	358.4	635.6	-1.2205	3.3137
		323	125.6	577.6	-4.7914	3.0174
		324 385	145.1	336.2 436.7	-4.4576 -4.8246	1.0356
		1902	375.3	341.4	-0.9634	-0.2990
		1902	588.9	221.6	2.2561	-1.9816
		1904	472.6	198.7	0.4930	-2.2975
		1905	541.5	669.0	1.5571	4.2962
12704	06136518	204	682.7	233.6	3.6805	-1.8123
		314	762.0	522.6	4.8825	2.2702
		316	456.7	615.6	0.2714	3.5352
	-	313	178.7	151.0	-3.9607	-2.3437
		319	274.7	517.7	-2.4904	2.1709
		1905	365.7	199.3	-1.1276	-2.2844
		1906	599.6	395.0	2.4179	0.4432
		1908	132.3	546.2	-4.6690	2.5741
		1909	37•2	397.3	-6.1332	0.4750
12705	06136538	314	587.0	66.8	2.2435	-4.1402
		316	275.7	153.7	-2.4916	-2.9278
		319	94.9	58.7	-5.2773	-4.3751
12710	J5137778	248	711.7	405.0	4.1160	0.5946
		250	484.4	451.1	0.6867	1.2302
		321	249.5	234.9	-2.3322	-1.7909
12302	J6172358	70	209.8	113.6	-3.4953	-3.5112
		71	103.0	142.5	-5.1175	-3.1396
		162	204-2	169-2	3 - 5 7 3 5	-2-7-2-0-
	J .]	216	413.3	317.3	-0.3982	-0.6386
-		229	453.1	168.8	0.1966	-2.7153
	1	232	575.8	137.0	2.0609	-3.1633
		233	369.1	87.9 542.0	-1.0739 -4.9008	-3.8513 2.5153
		242	117.2	772.0	-4.7000	200100

Rev/	DAS Reference	Point	Mean I Coordi		Image Coor	dinates (mm
Frame	Time		X	Ÿ	x _o	y _o
12802	06172358	243	130.9	420.6	-3.9132	0.8127
12002	00112330	245	65.7	510.7	-5.7103	2.0754
		342	720.2	549.2	4.2419	2.6309
•		347	416.8	557.5	-0.3327	2.7183
		357	233.0	272.1	-3.1278	-1.2632
		367	149.0	198.3	-4.4073	-2.3223
	1	1816	258.7	554.3	-2.7346	2.6815
	1	1321	685.5	669.9	3.7332	4.3519
•		1824	576.9	344.6	2.0762	-0.2646
		1829	773.5	367.0	5.0533	0.0624
12803	06172428	341	570.0	537.9	1.9813	2.4460
	1	342	568.7	56.9	1.9637	-4.1423
		346	315-1	561.4	-1.8760	2.7789
		347	255.8	66.0	-2.3018	-4.1776
	·	352	317.3	248.6	-1.8562	-1.5957
		1815	43.1	420.5	-6.0434	0.8033
		1816	91.3	63.9	-5.3316	-4.3020
		1817	221.1	224.3	-3.3125	-1.9419
		1819	765.0	603.8	4.0233	3.4114
		1821	529.4	193.3	1.3546	-2.3745
		1822	436.3	406.2	-0.0440	0.6039
	,	1827	790.0	120.9	5.3788° 4.9750	-0.0815
		1828	768.0	356.8		·
12804	06172498	341	402.6	71.6	-0.5701	-4.0765
•	ļ	343	413.3	605.9	-0.3849	3.3983
		346	133.7	93.6	-4.5850	-3.8293
		348	204.6	036.2	-3.5809	3.8350
		350	237.2	369.4	-2.3013	0.0998
		1813	73.4	495.1	-5.5782	1.8549
		1314	162.1	399.4	-4.1986	0.5168
		1813	679.6	379.6	3.6286	0.2187
		1319	539.4	145.1	1.5084	-3.0466
		1820	433.3	327.2	-0.0939	-0.4985
		1823	656.2	684.0	3.2895	4.5443
		1826	725.2	224.9	4.3349	-1.9319
12805	06172568	343	2.24 - 1	-139.4	3 • 2738	-3.1376
		344	497.0	377.9	0.8729	0.2083
		345	788.9	328.8	5.3006	-0.4665
-		340	658.9	53.1	3.3584	-4.3378
		349	164.9	466.6	-4.1564	1.4621
		836	788.3	205.1	5.3151	-2.2039

Rev/	DAS Reference	Point	Mean E Coordi		ites Image Coordinates	
Frame	Time	TOTHE	X	Ÿ	×o	уо
12805	J6172568	1823	468.1	226.9	0.4269	-1.8986
12806	06173618	242	59.3	492.6	-5.8011	1.8228
		243	235.4	324-1	-3.0973	-0.5312
		357 358	384.1 545.5	94.2 457.8	-0.8497 1.6038	1.3282
12903	06208338	249	210.0	314.3	-3.4740	-0.6754
		315	760.6	370.8	4.8581	0.1157
		318	538.9	555.7	1.5110	2.6948
•		323	283.8	542.8	-2.3532	2.5191
		324	282.5	29J•4 396•5	-2.3786 -2.6103	-1.0112 0.4765
		385 1902	266.8 525.5	254.2	1.2946	-1.5238
		1902	725.5	99.4	4.3752	-3.6940
		1904	606.7	93.5	2.5390	-3.7698
	·	1905	732.6	557.2	4.4302	2.7532
	-	1911	40.8	345.1	-6.0701	-0.2650
12904	ე6208408 🔍	316	687.3	525.6	3.7441	2.2894
		318	360.9	98.2	-1.2033	-3.7065
,		319	493.8	457.6	0.8284	1.3189
		323 326	93.1 545.6	84.0 657.5	-5.2114 1.6176	-3.9980 4.1327
•	1	1905	557.3	106.2	1.7836	-3.5925
	,	1907	92.3	427.6	-5.2731	0.9060
		1938	342.8	515.8	-1.4542	2.1398
		1909	229.7	376.2	-3.1710	0.1931
12905	05208478	316	507.0	69.7	1.0206	-4.0998
		326	357.9	199.0	-1.2443	-2.2878
		1908	156.5	55•6	-4.3190	-4.3698
13001	06244178	70	315.8	413.6	-1.8689	0.7122
		71	206.4	459.0	-3.5265	1.3513
		162	318.8	466.3	-1.8212	1.4482
		216	558.7	562.1	1.8110	2.7810
	-	221	98.7	419.5	-5.1731	0.7929
7		· 223 233	476.9	298•8 = 361•0	-3.9314 0.5653	-0.8964 -0.0341
		233 229	573.6	419.4	2.0244	0.7788
		244	217.9	608.3	-3.3688	3.4386
		357	363.4	556.6	-1.1425	2.7062
		367	265.5	504.0	-2.6303	1.9775

13002 06244248	Rev/	DAS Reference	Point	Mean F Coordi		Image Coor	dinates (mm)
245 56.7 386.3 -5.8262 0.31	Frame	Time		$\overline{\mathbf{x}}$	Ÿ	^x o	yo
245 56.7 386.3 -5.8262 0.31			·				
245 56.7 386.3 -5.3262 0.31 352 536.2 525.1 1.4704 2.26 353 215.9 564.4 -3.3927 2.82 1316 278.0 385.9 -2.4408 0.32 1817 435.5 520.8 -0.0555 2.20 1821 742.1 431.6 4.5749 0.96 13003 05244318 341 672.0 317.3 3.5147 -0.64 346 408.2 385.5 -0.4710 0.31 350 590.2 639.1 2.2899 3.87 351 210.2 532.9 -3.4826 3.08 352 377.5 67.3 -0.9529 -4.14 353 47.9 105.8 -5.9999 -3.72 1811 50.7 487.8 -5.9989 1.75 1814 467.5 696.0 0.4355 4.67 1815 98.5 295.3 -5.1738 -0.95 1819 814.1 353.9 5.6831 0.02 1820 733.7 566.3 4.4520 2.83 1822 520.6 205.5 1.2206 -2.20 13004 06244388 343 593.0 456.3 2.3215 1.30 356 445.7 227.6 0.0869 -1.89 357 358 228.5 -3.2201 0.56 1310 362 375.4 375.1 228.5 -3.2201 0.56 13005 06244458 344 706.8 203.4 4.0554 -2.32 13005 0624458 344 706.8 203.4 4.0554 -2.23 13005 0624458 344 706.8 203.4 4.0554 -2.23 13005 06245648 242 319.3 624.5 -3.7280 -4.23 13008 06245648 242 319.3 624.5 -3.8195 -0.9641 13008 06245648 242 319.3 624.5 -1.8153 3.65 243 488.2 429.6 0.7435 -0.92 244 276.7 102.3 -2.4805 -3.55 245 137.6 526.5 -3.3195 -2.69 245 137.6 526.5 -3.3195 -3.65 357 512.5 174.1 2.6139 -2.64 245 137.6 526.5 -3.3195 -2.69 246 276.7 102.3 -2.4805 -3.65 357 512.5 174.1 2.6139 -2.64 246 276.7 102.3 -2.4805 -3.65 357 512.5 174.1 2.6139 -2.64 246 276.7 102.3 -2.4805 -3.65 357 512.5 174.1 2.6139 -2.64 246 276.7 102.3 -2.4805 -3.65 357 512.5 174.1 2.6139 -2.64 357	13002	06244248	242	119.0	404.9	-4.8557	0.5832
352			245	56.7	386.3	-5.8262	0.3198
353			347	447.3	361.7	0.1263	-0.0215
1316			352	536.2	525.1	1.4704	2.2631
13003 05244318 341 672.0 317.3 3.5147 -0.64 4.5749 0.96 346 403.2 385.5 -0.4710 0.31 350 590.2 639.1 2.2899 3.87 351 210.2 532.9 -3.4826 3.08 352 377.5 67.3 -0.9529 -4.14 353 47.9 105.8 -5.9909 -3.72 1611 50.7 487.8 -5.9389 1.75 1614 467.5 696.0 0.4355 4.67 1815 98.5 295.3 -5.1738 -0.952 1822 520.6 205.5 1.2206 -2.20 13004 06244388 343 375.1 528.5 -0.641 2.31 350 375.1 568.3 127.4 570.7 4.7539 2.92 1613 226.4 402.5 3.2201 0.56 1814 313.2 282.5 -1.8385 -1.12 1820 591.6 159.4 2.3077 -2.34 13005 06244458 344 706.8 203.4 4.0554 -2.32 15005 06244458 344 706.8 203.4 4.0554 -2.32 15005 06244458 344 706.8 203.4 4.0554 -2.32 15005 06244458 344 706.8 203.4 4.0554 -2.32 15005 06244458 344 706.8 203.4 4.0554 -2.32 15005 06244458 344 706.8 203.4 4.0554 -2.33 364 375.4 359.5 -0.9679 -0.9679 1823 666.7 44.8 3.5142 -4.45 13008 06245648 242 319.3 624.5 -1.8153 3.65 2.43 488.2 242 319.3 624.5 -1.8153 3.65 2.43 488.2 242 319.3 624.5 -1.8153 3.65 2.29 349.6 5.56093 -3.19 357 512.5 174.1 2.6139 2.26			353	215.9	564.4	-3.3927	2.8244
13003 05244318 341 672.0 317.3 3.5147 -0.64 408.2 385.5 -0.4710 0.31 350 590.2 639.1 2.2899 3.87 351 210.2 532.9 -3.4826 3.08 352 377.5 67.3 -0.9529 -4.14 407.5 696.0 0.4355 4.67 1815 98.5 295.3 -5.1738 -0.952 1822 520.6 205.5 1.2206 -2.20 13004 368 348 375.1 528.5 -0.641 2.31 350 362 445.7 227.6 0.0869 -1.89 351 226.4 402.5 32201 0.56 1814 318.2 282.5 -1.8385 -1.12 1820 591.6 159.4 2.307 -2.34 13005 36244458 344 706.8 203.4 4.0554 -2.33 13005 36245548 242 319.3 624.5 -1.8153 3.65 2.29 349.6 -5.5609 -0.9679 1.3008 36245548 242 319.3 624.5 -1.8158 3.65 2.29 349.6 -5.5609 -1.99 1823 666.7 44.8 359.5 -0.9679 -0.04 1823 666.7 44.8 359.5 -0.9679 -0.9679 -0.9679 -0.04 1825 566.5 566.5 566.5 566.5 566.5 566.5 56		• •	1316	278.0	385.9	-2.4408	.0.3270
13003 06244318 341 672.0 317.3 3.5147 -0.64 346 408.2 385.5 -0.4710 0.31 350 590.2 639.1 2.2899 3.87 351 210.2 582.9 -3.4826 3.08 352 377.5 67.3 -0.9529 -4.14 353 47.9 105.8 -5.9909 -3.72 1811 50.7 487.8 -5.9389 1.75 1819 814.1 353.9 5.6831 0.02 1822 520.6 205.5 1.2206 -2.20 13004 06244386 343 593.0 456.3 2.3215 1.30 351 56.5 166.3 -5.8620 -2.20 13005 06244458 344 706.8 203.4 4.0554 -2.82 13005 06244458 344 706.8 203.4 4.0554 -2.33 1300 05245548 242 319.3 624.5 -1.8158 -0.967 1823 666.7 44.8 3.5142 -4.45 13008 06245548 242 319.3 624.5 -0.9679 -0.04 244 270.7 102.3 -2.4805 -3.5693 244 270.7 102.3 -2.4805 -3.659 244 270.7 102.3 -2.4805 -3.659 244 270.7 102.3 -2.4805 -3.659 245 137.6 525.5 -3.8195 2.29 244 270.7 102.3 -2.4805 -3.659 245 137.6 525.5 -3.8195 2.29 246 270.7 102.3 -2.4805 -3.659 357 512.5 174.1 2.6139 -2.64		·		1	520.8		2.2034
346			3	l		1	0.9682
350	13003	06244318	341	672.0		3.5147	-0.6454
351 210.2 582.9 -3.4826 3.08 352 377.5 67.3 -0.9529 -4.14 353 47.9 105.8 -5.9909 -3.72 1814 467.5 696.0 0.4355 4.67 1815 98.5 295.3 -5.1738 -0.95 1819 814.1 363.9 5.6831 0.02 1822 520.6 205.5 1.2206 -2.20 1822 520.6 205.5 1.2206 -2.20 1822 520.6 205.5 1.2206 -2.20 1823 343 375.1 528.5 -0.9641 2.31 350 345 327.4 570.7 -4.7539 2.92 1814 312.2 282.5 -1.8385 -1.12 1820 591.6 159.4 2.3097 -2.34 13005 36244458 344 706.8 203.4 4.0554 -2.23 354 72.9 349.6 -5.5693 -0.19 349 375.4 359.5 -0.9679 -0.04 1823 666.7 44.8 3.5142 -4.45 13008 36245648 242 319.3 624.5 -1.8153 3.65 243 -483.2 429.6 -0.9679 -0.9679 244 276.7 102.3 -2.4805 -3.65 245 137.6 526.5 -3.8195 2.29 357 512.5 174.1 2.6139 -2.64			346	408.2	385.5	-0.4710	0.3153
352 377.5 67.3 -0.9529 -4.14 353 47.9 105.8 -5.9909 -3.72 487.8 69.0 0.4355 4.67 467.5 696.0 0.4355 4.67 1815 98.5 295.3 -5.1738 -0.95 1819 814.1 363.9 5.6831 0.02 1822 520.6 205.5 1.2206 -2.20 1822 520.6 205.5 1.2206 -2.20 1822 520.6 205.5 1.2206 -2.20 1822 520.6 205.5 1.2206 -2.20 1.30 348 375.1 528.5 -0.9641 2.31 350 445.7 227.6 0.0869 -1.89 351 56.5 166.3 -5.8426 -2.82 355 127.4 570.7 -4.7539 2.92 1813 226.4 402.5 -3.2201 0.56 1814 312.2 282.5 -1.8385 -1.12 1320 591.6 159.4 2.3007 -2.34 13005 349 375.4 359.5 -3.7280 -4.23 349 375.4 359.5 -0.9679 -0.04 1823 666.7 44.8 3.5142 -4.45 13009 36245648 242 319.3 624.5 -1.8153 3.65 -3.7280 -4.23 349 375.4 359.5 -0.9679 -0.04 -4.45 13009 36245648 242 319.3 624.5 -1.8153 3.65 -3.3195 2.29 2.4805 -3.65 -2.4805 -3.65 -2.4805 -3.65 -2.4805 -3.65 -2.4805 -3.65 -2.4805 -3.65 -2.4805 -3.65 -2.64 357 512.5 174.1 2.6199 -2.64 -2			350	I .		2.2899	3.8757
353			351				3.0848
1811 50.7 497.8 -5.9389 1.75 1814 467.5 696.0 0.4355 4.67 1815 98.5 295.3 -5.1738 -0.95 1820 733.7 566.3 4.4520 2.88 1822 520.6 205.5 1.2206 -2.20 18004 06244388 343 593.0 456.3 2.3215 1.30 350 445.7 227.6 0.0869 -1.89 351 56.5 166.3 -5.8426 -2.82 355 127.4 570.7 -4.7539 2.92 1813 226.4 402.5 -3.2201 0.56 1814 318.2 282.5 -1.8385 -1.12 1820 591.6 159.4 2.3007 -2.84 13005 06244458 344 706.8 203.4 4.0554 -2.23 346 194.9 63.5 -3.7280 -4.23 354 72.9 349.6 -5.5693 -3.19 349 375.4 359.5 -0.9679 -0.04 1823 666.7 44.8 3.5142 -4.45 13008 06245648 242 319.3 624.5 -1.8153 3.65 244 276.7 102.3 -2.4805 -3.65 245 137.6 525.5 -3.8195 2.29 357 512.5 174.1 2.6139 -2.64			352	377.5	67.3	1	-4.1422
1814 467.5 696.0 0.4355 4.67 1815 98.5 295.3 -5.1738 -0.95 1819 814.1 363.9 5.6831 0.02 1820 733.7 566.3 4.4520 2.88 1822 520.6 205.5 1.2206 -2.20 1822 520.6 205.5 1.2206 -2.20 1822 520.6 205.5 1.2206 -2.20 1822 520.6 205.5 1.2206 -2.20 1822 520.6 205.5 1.2206 -2.20 1833 375.1 528.5 -0.9641 2.31 350 445.7 227.6 0.0869 -1.89 351 56.5 166.3 -5.8426 -2.82 355 127.4 570.7 -4.7539 2.92 1813 226.4 402.5 -3.2201 0.56 1814 313.2 282.5 -1.8385 -1.12 13005 3624458 344 706.8 203.4 4.0554 -2.23			I .	1		1	-3.7210
1815 98.5 295.3 -5.1738 -0.95 1819 1320 733.7 566.3 4.4520 2.88 1822 520.6 205.5 1.2206 -2.20 1.2206 -2.20 1.2206 -2.20 1.2206 -2.20 1.2206 -2.20 1.2206 -2.20 1.2206 -2.20 1.2206 -2.20 1.2206 -2.20 1.2206 -2.20 1.2206 -2.20 1.2206 -2.20 1.2206 -2.20 1.2206 -2.20 1.2206 -2.20 1.2206 -2.20 1.20			1811	4	487.8	-5.9389	1.7506
1819 814.1 363.9 5.6831 0.02 2.88 1822 520.6 205.5 1.2206 -2.20 13004 06244388 343 593.0 456.3 2.3215 1.30 348 375.1 528.5 -0.9641 2.31 350 445.7 227.6 0.0869 -1.89 351 56.5 166.3 -5.8426 -2.32 355 127.4 570.7 -4.7539 2.92 1813 226.4 402.5 -3.2201 0.56 1814 313.2 282.5 -1.8385 -1.12 1320 591.6 159.4 2.3007 -2.34 13005 36244458 344 706.8 203.4 4.0554 -2.23 346 194.9 63.5 -3.7280 -4.23 354 72.9 349.6 -5.5693 -3.19 349 375.4 359.5 -0.9679 -0.04 1823 668.7 44.8 3.5142 -4.45 13008 30245648 242			1814	467.5	696.0	1	4.672)
1320 733.7 566.3 4.4520 2.88 1822 520.6 205.5 1.2206 -2.20 13004 06244388 343 593.0 456.3 2.3215 1.30 343 375.1 528.5 -0.9641 2.31 350 445.7 227.6 0.0869 -1.89 351 56.5 166.3 -5.8426 -2.82 355 127.4 570.7 -4.7539 2.92 1813 226.4 402.5 -3.2201 0.56 1814 313.2 282.5 -1.8385 -1.12 1320 591.6 159.4 2.3007 -2.34 13005 06244458 344 706.8 203.4 4.0554 -2.23 354 72.9 349.6 -5.5693 -0.19 349 375.4 359.5 -0.9679 -0.04 1823 666.7 44.8 3.5142 -4.45 13008 30245648 242 319.3 624.5 -1.8153 3.65 243 -483.2		·		L .	295.3	i	-0.9592
13C04 06244388 343 593.0 456.3 2.3215 1.30 343 375.1 528.5 -0.9641 2.31 350 445.7 227.6 0.0869 -1.89 351 56.5 166.3 -5.8426 -2.82 355 127.4 570.7 -4.7539 2.92 1813 226.4 402.5 -3.2201 0.56 1814 313.2 282.5 -1.8385 -1.12 1820 591.6 159.4 2.3007 -2.34 13005 36244458 344 706.8 203.4 4.0554 -2.23 354 72.9 349.6 -3.7280 -4.23 349 375.4 359.5 -0.9679 -0.04 1823 666.7 44.8 3.5142 -4.65 13008 36245648 242 319.3 624.5 -1.8153 3.65 244 276.7 102.3 -2.4805 -3.65 245 137.6 525.5 -3.8195 -2.64				1			0.0279
13004			1			1	2.8838
348 375.1 528.5 -0.9641 2.31 350 445.7 227.6 0.0869 -1.89 351 56.5 166.3 -5.8426 -2.82 355 127.4 570.7 -4.7539 2.92 1813 226.4 402.5 -3.2201 0.56 1814 313.2 282.5 -1.8385 -1.12 1320 591.6 159.4 2.3007 -2.34 1320 591.6 159.4 2.3007 -2.34 1320 591.6 159.4 2.055 -1.8385 -1.12 1320 591.6 159.4 2.3007 -2.34 1320 349 63.5 -3.7280 -4.23 354 72.9 349.6 -5.5693 -0.19 349 375.4 359.5 -0.9679 -0.04 1823 666.7 44.8 3.5142 -4.45 13008 36245648 -1.8158 3.65 243 -488.2 429.6 0.7435 -0.92 244 276.7			1822	520.6	205.5	1.2206	-2.2043
350	13004	06244388			P .		1.3019
13005							2.3161
13005			•		1	1	-1.8914
1813 226.4 402.5 -3.2201 0.56 1814 313.2 282.5 -1.8385 -1.12 13005 344 736.8 203.4 4.0554 -2.23 348 194.9 63.5 -3.7280 -4.23 354 72.9 349.6 -5.5693 -3.19 349 375.4 359.5 -0.9679 -0.04 1823 666.7 44.8 3.5142 -4.45 13008 36245648 242 319.3 624.5 -1.8153 3.65 -243 483.2 429.6 0.7435- -0.92 244 276.7 102.3 -2.4805 -3.55 245 137.6 525.5 -3.3195 2.29 357 512.5 174.1 2.6139 -2.64	•			i e		I .	-2.8240
13005				4	•		2.9205
13005 344 706.8 203.4 4.0554 -2.23 348 194.9 63.5 -3.7280 -4.23 354 72.9 349.6 -5.5693 -0.19 349 375.4 359.5 -0.9679 -0.04 1823 666.7 44.8 3.5142 -4.45 13008 36245648 242 319.3 624.5 -1.8158 3.65 -243 -483.2 429.6 0.7435 -0.92 244 276.7 102.3 -2.4805 -3.65 245 137.6 526.5 -3.8195 2.29 357 512.5 174.1 2.6139 -2.64					1		0.5622
13005 36244458 344 706.8 203.4 4.0554 -2.23 348 194.9 63.5 -3.7280 -4.23 354 72.9 349.6 -5.5693 -3.19 349 375.4 359.5 -0.9679 -0.04 1823 666.7 44.8 3.5142 -4.45 13008 30245648 242 319.3 624.5 -1.8153 3.65 -243 -483.2 429.6 0.7435 -0.92 244 276.7 102.3 -2.4805 -3.65 245 137.6 526.5 -3.3195 2.29 357 512.5 174.1 2.6139 -2.64					1	l	-1.1215
348 194.9 63.5 -3.7280 -4.23 354 72.9 349.6 -5.5693 -3.19 349 375.4 359.5 -0.9679 -0.04 1823 666.7 44.8 3.5142 -4.45 1308 36245648 242 319.3 624.5 -1.8158 3.65 -243 -483.2 429.6 0.7435 -0.92 244 276.7 102.3 -2.4805 -3.65 245 137.6 525.5 -3.3195 2.29 357 512.5 174.1 2.6139 -2.64			1320	591.6	159.4	2.3007	-2.8497
348 194.9 63.5 -3.7280 -4.23 354 72.9 349.6 -5.5693 -3.19 349 375.4 359.5 -0.9679 -0.04 1823 666.7 44.8 3.5142 -4.45 1308 36245648 242 319.3 624.5 -1.8158 3.65 -243 -483.2 429.6 0.7435 -0.92 244 276.7 102.3 -2.4805 -3.65 245 137.6 525.5 -3.3195 2.29 357 512.5 174.1 2.6139 -2.64	13005	J6244458	344	706.8	203.4	4.0554	-2.2315
354 72.9 349.6 -5.5693 -3.19 349 375.4 359.5 -0.9679 -0.04 1823 666.7 44.8 3.5142 -4.45 1308 30245648 242 319.3 624.5 -1.8158 3.65 -243 -483.2 429.6 0.7435 -0.92 244 276.7 102.3 -2.4805 -3.65 245 137.6 526.5 -3.3195 2.29 357 512.5 174.1 2.6139 -2.64			1	1	i e	I	-4.2333
1308 349 375.4 359.5 -0.9679 -0.04 1308 36245648 242 319.3 624.5 -1.8158 3.65 -243 -488.2 429.6 0.7435 -0.92 244 276.7 102.3 -2.4805 -3.65 245 137.6 525.5 -3.3195 2.29 357 512.5 174.1 2.6139 -2.64			1	1	1		-0.1937
1308			1	l .	1	i ·	-0.0420
-243 -483.2 429.6 0.7435 -0.92 244 276.7 102.3 -2.4805 -3.65 245 137.6 525.5 -3.3195 2.29 357 512.5 174.1 2.6139 -2.64							-4.4565
-243	13008	06245548	242	319.3	624.5	-1.8153	3.6587
244 276.7 102.3 -2.4805 -3.65 245 137.6 525.5 -3.3195 2.29 357 512.5 174.1 2.6139 -2.64			I .	†	I .	!	-0.9284
245 137.6 525.5 -3.3195 2.29 357 512.5 174.1 2.6139 -2.64					1		-3.6569
357 512.5 174.1 2.6139 -2.64					1		2.2937
						\$	-2.6435
358 793.4 530.0 5.3697 2.38					1	.	2.3986

Rev/	DAS Reference	Point	Mean l Coord	Pixel inates	. •	dinates (mm)
Frame	Time		$\overline{\overline{\mathbf{x}}}$	Ÿ	x _o	уо
				,		
13026	05247048	297	453.1	316.0	0.3574	-0.6543
		1100	466.2	78.1	0.4014	-3.9788
i	·	1101	58.9	187.9	-5.7969	-2.5081
		1102	173.1	59.9	-4.0619	-4.2968
		1103	373.8	77.7	-1.0048	-3.9898
		1104	453.2	480.2	0.2171	1.6398
		1105	261.6	189.5	-2.7015	-2.4255
	,	1106	234.0	590.0	-3.1131	3.1833
13102	36280388	.163	274.5	343.2	-2.4963	-0.2712
		199	339.4	603.5	-1.5099	3.3627
		258	201.3	577.1	-3.6112	3.0017
		259	191.3	420.6	-3.7556	0.8109
13103	06280158	199	175.9	161.0	-4.0054	-2.8508
		243	279.5	401.4	-2.4207	0.5408
		249	432.3	614.9	-0.0987	3.5214
		250	198.5	503.7	-3.6494	1.9743
	,	321	62.3	498.1	-5.7602	1.8938
	·	324	504.0	577.7	0.9866	3.0011
		1902	742.3	495.2	4.5768	1.3681
		1911	260.3	678.9	-2.7301	4.4286
13104	06280228	249	270.6	143.8	-2.5715	-3.0737
		318	638.6	334.6	3.0056	-0.4060
		323	372.5	363.5	-1.0132	0.0082
		324	344.3	105.7	-1.4567	-3.6045
		327	297.3	678.3	-2.1593	4.4150
	•	329	75.9	571.3	-5.5774	2.9332
		385	339.3	217.1	-1.5274	-2.0393
		1909	540.2	640.8	1.5335	3.8914
		1910	269.3	463.1	-2.5710	1.4054
	٠.	1911	38.2	207.1	-5.3395	-2.2174
13105	C6280298	319	335.7	269.5	3.7234	-1.3122
	·	322	464.0	504.3	0.3794	1.9733
		325	255.3	550.2	-2.7869	2.6249
	-	326	751.2	471.7	4.7198	1.5410
		327	155.5	259.7	-4.3028	-1.4513
	·	1025	273.6	685.8	-2.5260	4.5253
		1025	333.4	613.4	-0.3418	3.5027
		1907	267.5	306.0	-2.6031	-0.7914
[· i	1938	536.2	355.5	1.4611	-0.1110
		1909	403.2	227.8	-0.4811	-1.8875

Rev/	DAS Reference	Point	Mean Pixel Coordinates		Image Coordinates (mm	
Frame	Time		x	¥	x _o	y _o
13105	06280298	1910	136.1	45.2	-4.6324	-4.5334
		1912	117.3	348.4	-4.8872	-0.2060
13106	06280368	322	312.3	50.1	-1.9450	-4.3921
	·	326	599.1	25.1	2.4420	-4.7295
•		1004	77.6	421.3	-5.5023	0.8202
		1005	259.7	358.9	-2.7134	-0.0452
		1006	180.3	379.9	-3.9214	0.2472
	·	1025	107.3	229.8	-5.0455	-1.8852
		1026	222•4 365•4	157.3	-3.2990	-2.8842
÷		1027	303.4	250.8	-1.1279	-1.5631
13129	06283028	1061	174.3	167.3	-4.0254	-2.7541
	,	1062	510.9	279.4	1.0783	-1.1661
		1063	477.3	474.4	.0.5806	1.5583
		1064	76.5	298.9	-5.5145	-0.9117
13202	05316138	242	202.7	383.6	-3.5812	0.2941
	}	243	247.7	242.4	-2.9094	-1.6876
		244	102.8	167.2	-5.1166	-2.7812
		245	129.9	378.0	-4.6911	0.2111
		347	548.4	283.9	1.6430	-1.1148
•	·	352	662.3	431.3	3.3642	0.9512
	·	353	327.1	525.8	-1.6938	2.2779
	i i	364	513.5	646.4	1.1292	3.9682
		375	185.7	658.4	-3.3841	4.1492
		386	48.9	526.4	-5.9889	2.2983
		1816	371•7 557•3	337.5	-1.0264 1.7818	-0.3558
•		1817	22143	443.2	1.4018	1.1125
13203	06316208	346 .	566.5	289.2	1.9178	-1.0410
		350	780.1	515.5	5.1596	2.1710
	,	351	379.4	529.5	-0.8993	2.3276
		353	149.0	68.4	-4.4318	-4.1900
		364	339.6	192.8	-1.5234	-2.3793
		376	392.4	651.4	-0.7054	4.0349
		380	109.6	343.7	-5.0058	-0.2738
		1811	195.0	462.2	-3.6987	1.3965
		1814 1315	660.7. 231.4	598.1 252.7	-3.1539	3.3096 -1.5436
		1822	656.0	88.0	3.2984	-3.8529
1 2 2 2 4	24214270	27.5	404 3	4.26 1	2 5102	0 0770
13204	06316278	348 350	606.3 649.1	426.1	2.5183 3.1898	0.8778
		220	043.1	98.2	3.1095	-3.1005

Rev/	DAS Reference	Point	Mean P Coordi		Image Coord	inates (mm)
Frame	Time	TOTHE	$\frac{\overline{x}}{\overline{x}}$	T Y	x _o	y _o
<u> </u>				<u> </u>	0	
13204	06316278	351	240.1	100.3	-3.0371	-3.6943
		355	347.4	519.4	-1.3344	2.1903
		376	250.2	224.3	-2.9730	-1.9398
		379	142.7	629.7	-4.5435	3.7524
		1195	357.4	667.1	-1.2385	4.2573
		1196	431.6	658.8	0.6496	4.1451
		1197	436.5	690.2	0.7249	4.5925
	·	1312 1813	210.2	459.6 320.3	-3.4677 0.0531	1.3612
		1814	525.8	176.4	1.3000	-2.6113
		1014	727.5	170.7	1.3000	-2.0115
13205	06316348	349	650.7	249.8	3.1938	-1.5862
		354	340.0	291.8	-1.5069	-0.9887
		355	188.4	47.4	-3.8330	-4.4718
		373	56.9	240.8	-5.8203	-1.7428
		1193	235.7	254.5	-3.0885	-1.5132
		1194 1195	368.2 192.0	233.2	-1.0365 -3.7544	-1.3092
		1195	320.7	195.2	-1.8102	-2.3534 -2.4322
		1197	324.3	220.9	-1.7459	-1.9810
	: 1	1199	105.1	292.1	-5.0714	-0.9987
13210	05317608	66	469.3	155.3	0.4436	-2.8997
13210	00311608	70	338.4	522.2	-1.9765	2.2352
	,	71	67.0	526.7	-5.6974	2.3059
	,	138	307.3	257.1	-1.9975	-1.4726
		160	361.9	156.5	-1.1866	4
		162	328.8	636.0	-1.6713	3.8240
		233	593.7	531.7	2.3383	2.3645
		236	209.0	212.1	-3.4955	-2.1113
		367	223.9	673.0	-3.2905	4.3554
13302	05351978	163	301.8	326.1	-2.0842	-0.5125
		<i>2</i> 58	253.9	557.7	-2.7339	2.7256
		259	224.4	414.1	-3.2525	0.7202
13303	06352048	199	258.1	121.3	-2.7619	-3.3955
		248	399.1	337.4	-0.6121	-0.3610
	·-·- · ·	259	326.i	452-3	-1.7120	1.2502
	· .	251	123.0	351.4	-4.8015	-0.1658
.		258	95.8	124.2	-5.2359	-3.4179
İ		321	174.6	473.8	-4.0116	1.5561
,	·	324	656.3	475.9	3.2756	1.5754
	•	328	297.0	633.1	-2.1651	4.4817

Rev/	DAS Reference	Point	Mean 1 Coord	Pixel Inates	Image Coord	linates (mm)
Frame	Time		$\overline{\mathbf{x}}$	Ÿ	x _o	Уо
						·
13303	05352048	385 1911	566.3 410.7	550.4 616.3	3.4356 -0.4271	3.0561 3.5389
13304	06352118	323	545.7	253.3	1.6015	-1.5422
		327	497.9	591.0	0.8946	3.1873
		328 329	110.8	207.3	-4.9943 -2.8414	-2.2101 2.2102
		385	494.4	109.8	0.8247	-3.5463
	·	1907	616.5	616.3	2.6825	3.5571
		1909	746.2	509.5	4.6351	2.0707
		1910	450.3	372.3	0.1647	0.1253
		1911	231.1	140.8	-3.1703	-3.1241
		1912	469.3	639•4	0.4627	4.5770
13305	C5352188	322	690.2	375.4	3.7877	0.1728
	ľ	325	479.0	453.4	0.6039	1.3303
	1	327	354.5	167.5	-1.2995	-2.7302
		329	102.2	97.4	-5.1464	~3.8032
		1025	504.6	603.2	0.9964	3.3616
	·	1026	613.3	504.0	2.6295	1.9720
•		1027 1967	763.6 472.6	572.6 197.8	4.9112 0.4925	2.9878 -2.3101
	·	1909	637.9	91.6	2.5590	-3.7975
		1912	321.7	268.0	-1.7879	-1.3257
		1913	142.0	685.0	-4.5904	4.5448
13306	Ü5352258	1004	314.4	358.5	-1.8903	-0.0522
		1005	497.9	256.1	0.8734	-1.4939
		1006	413.1	292.0	-0.3264	-0.9394
	1	1025	336.4	139.4	-1.5751	-3.1257
	· .	1025	449.9	43.0	0.1504	-4.4769
	-	1027	597.6	118.8	2.3964	-3.4155
13330	06355408	1094	695.4	154.7	3.8352	-2.9152
		1095	730.1	269.9	5.1741	-1.2985
13401	J6397958	70	378.2	385.3	-0.9274	0.3111
-		71	262.1	456.2	-2.5816	1.4479
		162	395.7	429.0	-0.6146	0.9198
		216 222	690.4	430.6 495.1	3.7373 -4.4647	0.9401
	[223	177.2	346.3	-4.4647 -3.9692	-0.2280
		233	542.2	286.3	1.5476	-1.0829.
	1	243	483.7	635.7	0.6737	3.8112

Rev/	DAS Reference	Point	Mean Coord	Pixel inates		linates (mm)
Frame	Time		X	Ÿ	x _o	y _o
13401	06387958	244	322.1	593.0	-1.7728	3.2159
		347	794.3	611.7	5.4033	3.5642
		357	478.3	488.9	0.5932	1.7516
		361	167.9	615.5	-4.1443	3.5438
		367	348.6	480.1	-1.3696	1.6364
13402	J6388328	242	310.6	348.0	-1.9499	-0.2055
		243	338.2	202.9	-1.5447	-2.2396
	• .	244	170.5	157.1	-4.0362	-2.9054
		245	231.2	356.1	-3.1510	-0.0914
		347	658.6	193.8	3.3168	-2.3756
		353	462.6	466.0	0.3556	1.4335
		364	673.3	553.3	3.5326	2.6744
		375	325.1	626.5	-1.7238	3.6850
		336	157.7	522.4	-4.2775	2.2373
		1806	97.1	458.6	-5.2059	1.3387
	:	1815	571.2	632.2	2.0022	3.7728
		1816 1817	485.4 639.9	272 . 1 345 . 9	0.6396 3.7849	-1.2768 -0.2462
13403	J 6388098	346	746•9	137.8	4.6920	-3.1604
		351	538.3	409.2	2.2454	0.6372
		364	507.6	73.5	1.0267	-4.0533
		375	147.2	141.2	-4.4409	-3.1367
	;	376	612.7	533.3	2.6228	2.3824
	• •	377	407.9	650.3	-0.4706	4.0194
	•	380	284.4	264.6	-2.3523	-1.3743
		1309	192.9	434.7	-3.7316	1.7119
		1810	102.2	338.1	-5.1190	-0.3538
		1811	388.8	371.8	-0.7661	0.1237
	• •	1813	813.2	589.3	5.6871	3.2529
		1315	402.5	151.2	-0.5727	-2.9638
13404	06338168	376	475.5	112.3	0.5359	-3.5063
		377	263.4	225.2	-2.6750	-1.9251
		378	481.5	639.1	0.6472	3.8642
		379	386.7	563.0	-0.7883	2.7979
		1193	663.7	519.7	3.3962	3.6218
		1194	- 792.3	569.3	5, 3543	2.9500
ĺ		1195	614.2	565.6	2.6471	2.8421
İ		1196	.742•7	533.3	4.5868	2.4123
[1197	749.0	565.5	4.6868	2.8782
ł		1199	531.6	636.2	1.4101	4.5401
 		1912	453.4	366.1	0.2112	0.0418

Rev/	DAS Reference	Point	Mean F Coordi		Image Coord	linates (mm
Frame	Time		$\overline{\mathbf{x}}$	Y	x _o	Уо
13404	06388168	1813	679.7	131.6	3.6393	-2.5418
13404	00300100	1814	742.3	21.5	4.6897	-4.8117
1 3405	C6388238	354	617.7	222.0	2.6928	-1.9732
•		378	327.0	212.2	-1.7134	-2.1034
		379	233.3	134.9	-3.1375	-3.2018
•		1193 1194	511.2	198.7 152.5	1.0775	-2.295
	·	1195	466.3	140.2	0.3957	-3.1134
	·	1196	593.7	113.9	2.3381	-3.4824
		1197	600.3	145.7	2.4341	-3.0384
		1199	379.3	261.8	-0.9158	-1.4096
13503	06424008	320	415.9	670.4	-0.3496	4.301
		327	724.0	450.8	4.2986	1.234
•		328 329	281.1	125.7	-2.4124 0.3729	-3.329
د		334	224.7	590.8	-3.2612	0.8259 3.1920
		1910	650.2	235.2	3.1855	-1.7978
		1911	397.8	38.2	-0.6437	-4.555
	į i	1912	704.5	557.3	4.0033	2.7392
		1914	285.2	428.8	-2.3306	0.9245
13504	06424078	320	276.3	254.1	-2.4752	-1.5212
		327	594.9	39.4	2.3727	-4.5318
		330 334	331.3	590.7 173.3	-1.6318 -5.4527	3.1861 -2.7078
		1912	574.2	149.2	2.0369	-2.9950
		1913	413.5	629.5	-0.3846	3.7269
		1914	150.0	11.2	-4.4356	-5.0367
13508	06425268	251	477.0	312.5	0.5656	-0.7129
		252	248.1	355.7	-2.8956	-0.0993
		253	102.2	.24.9	-5.1833	-4.8811
		321	550.2	544.8	1.6844	2.5361
13510	06425338	251	732.1	421.2	4.4210	0.8217
s.		252	502.7	468.7	0.9610	1.4720
		253 321	353.3 800.1	119.2 649.6	-1.3131 5.5003	-3.4129 4.1365
13601	J6459848	71 1 ÷ 2	305.7	. 445.5	-2.0214	1.1560
		162 222	443.2 180.2	386.9 493.8	0.0570 -3.9280	0.3277 1.8360
				' - "	2-72-00	1

Rev/	DAS Reference	Point	Mean Pixel Coordinates		Image Coordinates (mm	
Frame	Time		x	Ÿ	x _o	y _o
13601	05459848	223	189.3	351.4	-3.7858	-0.1574
15001	00137310	243	566.3	567.2	1.9249	2.850
		244	387.5	552.5	-0.7783	2.645
	·	357	539.1	429.2	1.5056	0.914
		361	221.4	603.8	-3.3149	3.373
		362	81.3	633.2	-5.5342	3.814
	·	367	399.3	442.6	-0.6036	1.108
13602	06459918	242	408.8	271.3	-0.4700	-1.2858
	·	243	416.0	128.2	-0.3677	-3.2887
•		244	232.8	108.9	-3.1472	-3.5786
		245	324.2	291.5	-1.7490	-1.0004
		353	531.8	362.0	2.1434	-0.025
		361	57.9	162.2	-5.8221	-2.8878
		375	455.7	543.6	0.2553	2.519
		380	611.7	639.6	2.6123	3.8846
		386	265.0	468.1	-2.6370	1.474
	,	387	45.0	561.3	-6.0698	2.792
		1805	95.3	669.3	-5.3341	4.336
		1806	192.0	417.1	-3.7449	0.760
		1815	714.2	508.4	4.1490	2.0466
		1816	573.6	172.0	2.1019	-2.6792
1 3603	36459986	351	766.6	275.8	4.9628	-1.2222
		. 375	286.8	75.8	-2.3288	-4.0364
		377	613.1	550.5	2.6288	2.6261
·	•	380	444.9	178.9	0.0729	-2.5776
i		381	315.7	605.8	-1.8695	3.3986
		386	92.5	5.5	-5.3504	-5.1859
	·	388	268.1	232.4	-2.6014	-1.8271
•	·	1807	82.3	261.8	-5.4225	-1.4420
		1809	373.4	418.7	-0.9961	0.780
		. 1810	261.7	284.3	-2.6921	-1.0996
		1811	563.1	270.8	1.8653	-1.2986
		1812 1815	812.3 549.9	655.0 46.3	5.7053 1.6793	4.2279
13604	06460053	377	431.9	140.3	0.6335	-3.1157
	55.5555	331	1774	191.4	-3.97.62	-2.4129
,	- 1	1812	686.8	257.2	3.7397	-1.4871
13702	06495828	251	230.9	242.9	-2.4096	-1.6814
		252	163.3	335.8	-4.1061	-0.3811
	1	.261	95.7	638.1	-5.4679	3.8835

Rev/	DAS Reference	Point	Mean F Coordi		Image Coord	linates (mm
Frame	Time	·	x	Y	x _o	y _o
13702	J5495328	321	370.7	338.0	-1.0432	-0.3520
1,102	1 03:75020	1911	662.1	393.6	3.3595	0.4193
703 د ۱	054,95898	262	237.0	259.4	-3.0707	-1.4513
		263	256.0	547.6	-2.7773	2.5856
	·	320	607.6	559.1	2.5458	2.7448
		328	411.1	27.4	-0.4430	-4.7065
		329	630.7	297.8	2.3875	-0.9238
		334	401.6	510.3	-0.5655	2.0557
		1914	449.5	331.4	0.1483	-0.4476
		1915	104.8	118.2	-5.1005	-3.5001
13704	05495968	263	122.8	117.8	-4.8211	-3.4902
•		264	161.5	287.1	-4.2118	-1.0683
		265	426.5	564.5	-0.1913	4.2132
•		266	493.3	386.9	0.8131	0.3238
		320	484.8	135.9	0.6758	-3.1808
		3 3 0	566.0	483.4	1.9130	1.6729
		332	232.2	670.2	-3.1645	4.3052
		333	130.5	528.0	-4.6943	2.3148
	\	334	275.9	81.3	-2.4961	-3.9516
		1913	652.0	509.4	3.2069	2.0454
13705	36496038	265	259.7	199.2	-2.7330	-2.2950
		332	58.9	204.0	-5.7949	-2.2780
•		1800	226.6	317.0	-3.2234	-0.6410
13731	C6499678	31	630.8	349.0	2.8888	-0.2061
		34	519.7	501.1	1.2196	1.9220
		35	364.3	308.1	-1.1337	-0.7709
		38	491.1	244.6	0.7741	-1.6624
		828	680.2	218.7	3.6447	-2.0271
		329 .	192.4	521.5	-3.7464	2.2193
13301	06531738	71	326.4	406.1	-1.7102	0.6035
		223	184.3	342.4	-3.8546	-0.2848
		242	632.0	637.7	2.9116	3.4326
		244	429.4	493.3	-0.1455	1.8134
		245	550.6	644.1	1.6893	3.9341
	+	246	131.9	669.4	-3.9455	4.3031
	_	361	258.2	571.6	-2.7458	2.9190
13302	J6531808	242	492.2	179.2	0.7859	-2.5777
	00751000	245	492.2	212.7	-0.4703	-2.1056
		677	サンプ・こ	212.1	-0.4703	-2.1056

Rev/	DAS Reference	Point	Mean l Coord:		Image Coord	dinates (mm
Frame	Time		$\overline{\mathbf{x}}$	Ÿ	x _o	уо
13802	06531808	361	106.0	134.9	-5.0726	-3.2554
		375	579.7	433.6	2.1124	0.9755
	· ·	386	371.0	393.4	-1.0374	0.4237
	İ	387	143.5	526.3	-4.4953	2.2918
		388	532.5	537.9	2.1641	3.1483
•		1805	207.3	627.0	-3.5375	3.7006
•		1806	285.2	356.4	-2.3345	-0.0884
		1907 1810	399.3 584.5	651.4 640.5	-0.5984 2.1977	4.0314 3.8903
1 380 3	06531878	381	514.0	497.7	1.1345	
		388	421.0	128.2	-0.2917	-3.2871
		1805	35.3	166.0	-6.17.65	-2.8463
•		1807	231.5	189.3	-3.1596	-2.4372
		1809 1810	551.7 422.2	300.1 180.8	1.6938 -0.2728	-0.8892 -2.5500
13907	06570728	800	553.2	436.0	1.7267	1.7224
		801	736.6	469.6	4.4935	1.5165
		802	768.9	101.5	5.0583	-3.6580
		805	398.5	116.4	-0.6302	-3.4415
-		808	576.3	143.2	2.6737	-3.0677
	·	809 847	555.3 206.1	24.5	1.7693 -3.5490	-4.7288 -3.4698
•		856	195.3	26.1	-3.7247	-4.7739
		911	153.1	350.6	-4.3372	-0.1666
13909	J5570798	28	783.9	227.5	5.2336	-1.8832
		806	564.1	21.9	3.4537	-4.7725
		807	191.6	48.9	-3.7824	-4.4456
•		809	594.0	693.9 395.5	2.3531	4.6725
		811 812	701.2 704.4	585.0	3.9568 4.0115	0.4640 3.1492
		844	194.7	313.4	-3.7049	-0.6864
•		856	246.2	.690.6	-2.9492	4.5989
13911	06570863	26	650.1	283.9	3.1862	-1.1034
•	,	27	721.9	60.7	4.3364	-4.2291
		806	694.7	560.1	3.8722	4.2220
		914 215	765.7	505.8	4.9335	2.0382
		815	618.3	38.9	2.7364	-4.5276
		824	233.2	273.7	-3.0480	-1.2413
13913	06570938	815	632.ó	678.6	2.9311	4.4602

Rev/	DAS Reference	Point	Mean P Coordi		Image Coord	linates (mm
Frame	Time		X	Ÿ	x _o	y _o
13913	06570938	817 819	772.9 436.4	402.8	5.0510	0.5773
		320 829	633.6 162.5	32.8 47.1 163.4	-0.0537 3.7447 -4.2049	-4.6161 -4.4198 -2.8123
13915	06571008	31 34	693.9 675.8	177.0 564.9	3.9371 3.5734	-2.5972 2.8484
		35 38 819	265.4 399.0 453.0	226.7 42.4 674.2	-2.6415 -0.6228 0.2156	-1.9017 -4.4856 4.3617
		820 825 826 827	699.0 485.0 266.0 707.5	683.8 105.9 157.9 99.0	3.9457 0.6848 -2.6367 4.0996	4.5771 -3.5900 -2.8694 -3.6914
13918	. 06571358	37 38 523	653.6 484.5 249.7	151.1 617.4 243.5	3.2492 0.6933 -2.8768	-2.9588 3.5640 -1.6664
		524 825 826 828	234.2 540.4 361.0 720.8	53.7 630.6 665.2 576.5	-3.1283 1.5437 -1.1832 4.2595	-4.3551 4.4655 4.2319 3.0326
13920	06571428	37 513 523 524 525	541.4 515.7 167.0 147.0 472.6	617.0 185.2 692.3 519.2 14.4	1.5539 1.1437 -4.1831 -4.4392 0.5037	3.5618 -2.4824 4.7346 2.1960 -4.3760
13922	06571498	511 512 513 517 518 525	64.9 269.0 426.3 644.8 753.6 386.2	359.6 58.4 636.1 221.3 505.1 478.5	-5.6935 -2.6012 -0.1899 3.1056 4.7507 -0.7974	-0.0560 -4.2814 3.3217 -1.9831 2.0185 1.6170
13924	06571568	512 514	157.0 217.7	500.9 68.3	-3.6704 -3.3791	1.9367
		516 - 517 519 521	470.6 - 555.5 553.2 463.2	225.4- 656.9 405.7 67.6	0.4646 1.7674 1.7191 0.3536	-1.9219 4.1257 0.5937 -4.1294
13926	06571638	514 ⁻	143.4	487.7	-4.4934	1.7505

Rev/ Frame	DAS Reference	Point	Mean I Coordi		Image Coord	linates (mm)
TTame	Time	·	x	Ÿ	x _o	уо
13926	06571638	515	68.5	191.1	-5.6469	-2.4582
		516	333.6	640.6	-0.8397	3.8820
		520	432.2	146.8	0.6395	-3.0229
•		521	376.7	490.6	-0.9417	1.7844
		522	730.1	379.7	4.3951	0.2389
		632	678.1	107.6	3.6354	-3.5729
13927	06571848	517	131.0	281.8	-4.6749	-1.1432
		518	208.3	458.4	-3.4967	1.3440
		. 519	132.4	111.0	-4.6761	-3.5818
•		535	745.2	152.9	4.6598	-2.9391
		536	793.7	169.0	5.4153	-2.7139
		540 880	614.5 624.0	122.7 553.5	2.6564 2.7943	-3.3610 2.6747
		881	207.0	559.5	-3.5272	2.7579
		881	201.0	137.3	-3.3212	201313
13928	06571918	519	215.5	683.8	-3.4247	4.5047
		521	145.1	454.3	-4.4614	1.2824
		520	237.0	201.6	-3.0745	-2.2621
		522	435.7	391.6	-0.0544	0.3988
•		539	772.1	395.6	5.0376	0.4689
		540	668.0	633.2	3.4662	4.4372
		542	666.7 404.3	111.8	3.4560 -0.5432	-3.5155 -2.5705
		632 · 633	445.8	102.5	0.0865	-3.6440
	·	Ų J	#47•0	102.5	0.3003	3.0440
13930	06571988	542	719.7	577.0	4.2603	4.4855
	·	543	797.2	513.4	5.4231	2.1486
		633	505.5	677.5	1.0130	4.4115
,		1296	76.1	158.3	-5.5377	-2.9326
		1297	435.9	129.4	-0.0638	-3.2702
13931	06572128	1285	150.1	614.3	-4.4237	3.5327
		1286	307.2	548.4	1.9969	2.5963
	j	1237	383.7	531.9	-0.8378	3.7593
		1294	614.4	594.4	2.6491	3.2482
14007	06606708	954	139.3	27.2	-4.5835	-4.7971
		955		31.0	0.2970	-4.6396
	1	957	383.2	140.0	-0.3623	-3.1117
		958	247.8	334.9	-2.3935	-0.3825
	<u>'</u>	.959	53.2	356.4	-5.8741	-0.1016
		950	185.3	549.2	-3.8493	2.6150
]	961	74.1	602.8	-5.6226	3.3798

Rev/	DAS Reference	Point	Mean P Coordi		Image Coord	inates (mm)
Frame	Time	Time	X	Ÿ	^x o	уо
14009	36606778	946	169.6	55.5	-4.1173	-4.3617
14007		947	511.8	14.7	1.1056	-4.3678
	,	948	764.6	11.2	5.0623	-4.9547
		949	67.3	190.4	-5.6646	-2.4639
	•	950	45.2	356.6	-6.0023	-0.0990
		951	270.0	426.5	-2.5593	0.8992
		952	82.3	579.7	-5.4714	3.0531
•		954	192.3	677.8	-3.7824	4.4252
,		955	499.9	689.1	0.9295	4.5813
	•	963	648.5	131.7	3.1764	-3.2288
		964	701.8	351.1	3.9696	-0.1596
		965	556.2	375.5	1.7654	0.1385
		956	788.3	499.5	5.2856	1.9560
14011	0 6606848	938	359.6	36.4	-1.2242	-4.5731
	30000010	939	502.7	33.4	2.4973	-4.6049
	•	940	757.1	121.3	4.8631	-3.3781
		941	710.0	228.8	4.1014	-1.8713
		942	731.6	363.2	4.4218	0.0142
		947	527.3	656.9	1.3490	4.1267
		948	780.2	644.1	5.1944	4.0475
14013	36606918	929	431.9	323.2	-0.1146	-0.5507
*		930	465.2	409.3	0.3948	0.6504
		931	715.3	366.7	4.1806	0.0616
	·	- 932	682.2	189.4	3.6799	-2.4234
		938	358.8	680.1	-1.2190	4.4433
		939	593.0	677.2	2.4106	4.4327
14015	J6635983	924	74.9	196.9	-5.5444	-2.3648
	,	925	151.0	111.3	-4.3881	-3.5607
	4. (*)	926	478.3	141.1	0.5333	-3.0977
		927	666.6	523.4	3.4345	2.2173
		928	528.3	336.3	1.3435	-0.3677
		1003	89.7	545.4	-5.3427	2.5662
14013	JööÖ7338	753	190.3	73.0	-3.7938	-4.0945
		754	234.7	206.8	-3.1064	-2.1838
		755	774.6	48.0	5.1959	4.4242
		924	243.)	536.1	-2.9878	3.8307
	·	925	312.6	598.0	-1.9149	3.2935
	·	92ó	563.2	695.1	1.8871	4.6967
14320) 65)7408	753	107.0	526.6.	-5.0560	2.2984

Rev/ Frame	DAS Reference	Point	Mean I Coordi		Image Coordinates (mm)	
riame	Time		$\overline{\mathbf{x}}$	Y	.x _o	y _o .
	,					
14020	066C7408	754	151.5	650.3	-4.4130	4.0414
	,	755	659.9	514.1	3.3335	2.1267
	·	785	353.1	69.8	-1.3207	-4.1032
		786	527.7	162.1	1.3319	-2.8053
•	1	787	165.1	214.6	-4.1536	-2.0855
		792	643.3	25.5	3.1306	-4.7225
14022	06607478	785	267.5	521.1	-2.5994	2.2190
		786	432.5	610.0	-0.0943	3.4568
		787	97.1	649.7	-5.2880	4.0498
		788	174.2	200.4	-4.0227	-2.2850
		739	458.8	270.0	0.2889	-1.2978
*	ļ	791	743.6	260.0	4.6132	-1.4369
		792	545.4	435.0	1.6092	1.7048
		798	617.2	35.4	2.7210	-4.5819
14024	J6607548	757	29.6	410.3	-6.2542	0.6562
,		768	513.5	269.9	1.1169	-1.3024
	·	769	583.9	365.7	2.1828	0.0343
!	,	770	674.4	350.0	3.5518	-0.1820
,	. ·	788	107.6	616.6	-5.0967	3.5698
		789	374.2	684.3	-0.9837	4.4999
		790	209.6	101.7	-3.4983	-3.6803
		791 793	645.3	673.4 75.8	3.1240 -0.0404	4.3879
		794	668.0	75.5	3.4918	-4.0145. -4.0230
		798	524.2	467.3	1.2884	1.4551
14027	05607828	768	103.9	42.0	-5.1442	-4.6138
	0000.020	770	228.2	103.0	-3.2170	-3.6582
		771	630.7	509.2	2.8933	2.0488
		772	648.6	438.3	3.1595	1.0539
		791	198.0	326.8	-3.6537	-0.4998
		792	52.2	451.6	-5.9028	1.2389
		795	488.4	203.6	0.7335	-2.2278
		796	281.9	475.7	-2.3791	1.5835
	·	798	106.2	179.3	-5.0621	-2.6046
14028	05607898	768	172.4	603.7	4.0687	3.3781
		769	.227.0	670.3	-3.2441	4.3118
		770	294.8	664.5	-2.1978	4.2222
	!	793	115.2	467.3	-4.9271	1.4624
·		794	295.1	479.2	-2.1794	1.6302

Rev/	DAS Reference	Point	Mean Pixel Coordinates		Image Coordinates (mm)	
Frame	Time		X	¥	x _o	Уо
	·					
14104	06640938	177	119.2	175.2	-4.8643	-2.6614
-		306	443.3	534.4	0.0667	3.0933
		368	576.4	399.0	2.0665	0.4958
		382	240.2	515.7	-3.0169	2.1405
14109	06642638	862	201.4	661.9	-3.6395	4.1994
		863	326.4	309.0	-1.7118	-0.7447
		864	748.0	17.7	4.7833	-4.8554
		865	273.4	88.6	-2.5307	-3.8468
		832	737.1	631.3	4.5160	3.8275
·		883	563.9	470.0	1.8854	1.4985
		834	767.6	246.6	4.9839	-1.6173
		385	692.0	519.7	3.8142	2.2141
14111	06642758	813	93.1	677.0	-5.3773	4.4521
1 1111	00012130	818	124.6	82.2	-4.3019	-4.0003
•	·	864	754.4	675.6	4.7941	4.4989
	•	866	244.9	392.2	-2.9402	0.4213
		867	201.7	33.0	-3.6271	-4.6690
	,	863	730.4	26.5	4.4996	-4.7238
		890	671.0	319.3	3.5009	-0.6083
14113	05642828	822	217.7	98.0	-3.3750	-3.7273
	·	867	229.5	693.2	-3.2096	4.6385
		868	745.5	633.6	4.6601	4.6130
	[- 869	316.4	324.2	-1.8613	-0.5315
		870	744.1	24.6	4.7202	-4.7552
•		871	486.1	36.6	0.7071	-4.5591
		872	139.5	11.1	-4.6006	-5.0420
•		893	739.5	318.7	4.5423	-0.6103
14115	05642898	870	754.4	657.8	4.7923	4.2324
		871	496.8	679.7	0.8815	4.4466
	İ	872	157.1	641.4	-4.3250	3.914
		874	306.7	473.0	-2.0033	1.546
•		375	327.9	29.0	-1.7093	-4.690
		876	454.4	43.6	0.2213	-4.4642
		896	692.6	257.1	3.8313	-1.4791
		- 897	5-76 • 1	483.7	2.0703	1.6898
14117	.06642968	873	77.5	677.4	-5.6323	4.4624
		875	338.4	652.7	-1.5279	4.0540
•		876	463.5 .	668.7	0.3742	4.2836
	1	877	497.8	69.8	0.8813	-4.0956

Rev/ Frame	DAS Reference	Point	Mean Pixel Coordinates		Image Coordinates (mm)	
rrame	Time		X	Ÿ	x _o	y _o
14117	06642968	873	296.3	207.3	-2.1767	-2.1727
		879	31.0	83.1	-5.4744	-4.0225
		900	676.9	500.3	3.5872	1.9340
		912	712.5	252.1	4.1368	-1.5482
14120	06643318	877	574.5	622.5	2.0529	3.6467
		878	392.4	674.1	-0.7057	4.3585
•		879	242.8	527.7	-2.9761	2.3134
		880	649.4	95.3	3.1970	-3.7373
		831	59.3	106.9	-5.8062	-3.6916
14129	06643808	535	62.3	380.1	-5.7366	0.2334
	,	536 537	112.7	400.2	-4.9524	0.5223
		538	109.3 546.7	75.5 122.1	-5.0397 1.6209	-4.1119
		545	699.3	204.7	3.9396	-3.3688 -2.2158
		546	600.2	573.3	2.4365	2.9508
		917	342.7	554.1	-1.4563	2.6754
		918	529.3	590.0	1.3704	3.1781
	, ·	919	677.4	567.2	3.5961	2.8779
14130	06543878	537	192.4	647.9	-3.7788	3.9993
		538	608.2	693.5	2.5637	4.6659
		539	117.5	636.5	-4.9527	3.8492
		543	86,8	211.7	-5.3615	-2.1529
	·	. 544	568.4	34.0	1.9655	-4.6049
٠.		549	692.1	470.5	3.8171	1.5111
		550	708.6	204,4	4.0816	-2.2216
14132	05643946	553	682.9	414.4	3.6768	0.7166
		554	607.1	208.3	2.5333	-2.1713
-		799	85.0	349.3	-5.3855	-0.2023
14222	06579368	771	517.1	573.8	1.1865	2.9517
		772	528•3	453.4	1.3488	1.2628
		7 95	286.1	69.0	-2.3393	-4.1255
		796	47.0	507.9	-6.0085	2.0371
14227	06679718	772	83.5	352.0	-5.4057	-0.1587
		773	788.2	54.1	5.4079	-4.3450
		774	799.6	372.7	5.4602	0.1540
	_	797	445.4	183.1	0.0820	-2.5116
14309	06714648	887	54.0	589.3	-5.9375	3.1913

Rev/	DAS Reference	Point	Mean P Coordi		Image Coord	inates (mm)
Frame	Time	TOTAL	$\overline{\overline{X}}$	Ÿ	^x o	y _o
					5.0443	2 (2(2
14309	06714648	892 908	136.7	411.8	-5.0461 -5.8319	0.6869
		909	373.4	44.7	-1.0134	-4.4535
•		910	337.9	669.2	-1.5366	4.2885
14313	J5714788	398	200.9	450.8	-3.6038	1.2394
		901	50.7 353.8	264.9	-5.9158 -1.3061	-1.4037 -2.2669
		902	428.7	42.7	-0.1706	-4.4791
		904	215.3	43.9	-3.4191	-4.5073
14315	06714858	903	459.6	684.4	0.3150	4.5067
		904	251.1	681.7	-2.8730	4.4703
		905	582.8	94.8	2.1772	-3.7447 -3.7536
	•	906	383.7 200.1	94.3 41.8	-0.7797 -3.6518	-4.5439
14313	06715208	905	634.5	676.4	2.9598	4.4312
		906	482.7	631.9	C.6653	3.7680
		907	344.3	544.0	-1.4307	2.5372
		913 914	121.4 213.6	52.8 146.4	-4.8571 -3.4315	-4.4266 -3.0395
·		915	574.3	28.8	2.0596	-4.6691
		916	638.3	164.2	3.0130	-2.7753
14320	06715278	913	46.2	513.2	-6.0246	2.1131
		914	135.4	603.3	-4.6539	3.3798
		915	470.4	506.1	0.4775	2.0019
	,	916 917	530.6 216.6	628.1	1.3892 -3.3890	3.7176 -3.3525
		918	491.4	198.2	0.7803	-2.2991
		919	707.9	166.0	4.0754	-2.7508
14327	06715698	546	64.3	469.0	-5.7153	1.4851
		547	496.0	95.0	0.8512	-3.7454
		548	648.3 787.7	53.4	3.1936	-4.3334
		555 556	725.5	314.4 167.7	5.2840 4.3440	-0.6702 -2.7298
		7589	619.2	525.0	2.7249	3.6853
14328	Ju715768	53€	67.9	570.2	-5.7052	2.9187
	•	545	217.5	657.9	-3.3365	4.1386
		547	556.2	653.2	1.7758	4.0730
		548	703.4	611.4	3.9973	3.5209

Rev/	DAS Reference	Mean Pixel Point Coordinates			ates Image Coordinates (m	
Frame	Time		$\overline{\mathbf{x}}$	<u> </u>	x _o	.y _o
14328	05715768	549	138.0	352.3	-4.5691	-0.1479
		550	156.5	83.6	-4.3116	-3.8910
		551	407.4	102.2	-0.4977	-3.6460
		560	670.5	285.7	3.4926	-1.0849
14330	06715838	544	106.8	485.3	-5.0594	1.7145
		550	239.2	658.8	-3.0517	4.1469
		551	475.6	675.5	0.5578	4.3804
		552	730.2	603.2	4.4065	3.4137
		553	170.4	299.7	-4.0755	-0.8882
		554	107.7	90.7	-5.0631	-3.8974
•		563	729.3	288.1	4.3960	-1.0505
		564	7.47 • 2	63.0	4.7376	-4.2137
		1313	470.0	195.5	0.4538	-2.3433
14422	06751328	773	564.2	143.3	1.8369	-3.0689
6		774	618.3	638.8	2.7145	3.8837
		797	131.0	331.3	-4.6753	-0.44.34
14427	0 6751678	773	135.4	181.0	-4.6144	-2.5701
	00172010	774	171.4	431.4	-4.0596	1.6686
		775	553.0	283.8	3.2297	-1.1101
14428	06751748	1683	99.7	66.7	-5.1930	-4.2477
	3	1685	791.8	285.8	5.3525	-1.0716
	· .	1688	556.3	442.6	1.7683	1.1090
1443C	06751818	1679	610.5	72.7	2.6031	-4.0631
		1681	717.8	252.5	4.2160	-1.5499
		1682	683.2	561.7	3.6832	2.7990
		1683	183.2	628.4	-3.9114	3.7254
14528	36787658	555	131.9	378.2	-3.8976	0.2220
		556	108.8	231.4	-5.0216	-1.8622
*		557	610.3	125.4	2.5997	-3.3208
	}	558	459.6	23.2	0.3008	-4.7531
		567	755.7	273.6	4.7971	-1.2453
İ		1589	64.4	649.5	-5.8301	4.0643
14529	J6787728	548	120.0	672.8	-4.9355	4.3773
1		552	72.0	120.2	-5.6057	-3.4885
ļ		557	666.6	582.7	3.4466	4.5333
,	ŀ	558	520.9	595.0	1.2435	3.2488
	•	560	70.6	361.4	-5.6040	-0.0297

Rev/	DAS Reference	Point	Mean Coord	Pixel Inates	Image Coord	linates (mm)
Frame	Time		$\overline{\mathbf{x}}$	Ÿ	x _o	y _o
14529	06737728	561	379.4	108.2	-0.9225	-3.5621
17767	00.0.720	562	662.7	27.9	3.4272	-4.6944
		570	681.0	453.8	3.6494	1.2758
		571	749.6	322.3	4.6948	-0.5648
14531	06787798	561	442.5	685.4	0.0544	4.5180
	•	562	716.1	605.4	4.1913	3.4396
	1 .	563	153.8	388.3	-4.3259	0.3581
		564	182.2	172.6	-3.9074	-2.6812
	1	574	654.3	430.3	3.2438	0.9404
•		575	794.7	293.3	5.3962	-1.1083
		1324	410.5	124.7	-0.4514	-3.3327
14624	06823358	1685	390.8	20.7	-0.7487	-4.7938
		1686	595.5	394.2	3.8695	0.4407
		1687	713.5	139.0	4.1710	-3.1316
•		1688	101.8	232.1	-5.1287	-1.8554
14626	06823428	1682	107.5	74.7	-5.0683	-4.1253
	,	1684	787.5	394.9	5.2744	0.4646
	·	1685	307.2	446.7	-1.9970	1.1767
		1687	520.4	561.7	2.7404	2.7897
•		1688	46.1	642.0	-6.1272	3.9597
14627	06823638	400	545.1	146.6	3.1197	-3.0251
		401	749.3	75.1	4.7613	-4.0359
•		775	67.9	325.5	-5.6464	-0.5359
14628	06323708	400	636.4	680.3	3.7509	.4.5127
		401	737.6	611.8	5.2944	3.5731
		403	333.8	84.0	-1.6151	-3.9076
		1684	578.2	329.2	2.0966	-0.4774
		1685	184.5	335.9	-3.8576	-0.3722
		1686	413.2	607.2	-0.3874	3.4160
		1667	434.0	439.9	-0.0760	1.0752
14630	05823778	403	404.2	664.1	-0.5270	4.2135
		404	630.4	531.8	2.8892	2.3662
-		407	6413	342.7	3.0486	-0.2897
•		1608	751.5	512.8	4.7189	2.1237
•		1609	745.5	650.3	4.6528	4.1070
•		1679 1680	50.0 256.5	139.0 277.4	-5.9483 -2.7717	-3.2312 -1.1948
		1681	143.5	317.9	-4.4828	-0.6336
		1001	(• (•)	31107	4.4020	0.0330

Rev/	DAS Reference	Point	Mean E Coordi		Image Coordinates (mm)	
Frame	Time		x	Y .	^x o	уо
14630	06823778	1682	111.5	611.3	-5.0349	3.4935
14631	06823918	404 405	182.1 529.0	457.6 538.9	-3.8937 1.3638	1.3356 2.4600
		406	512.0	308.7	1.0952	-0.7615
		407	191.0	294.6	-3.7619	-0.9527
	·	1603	438.7	627.1	-0.0007	3.6963
		1604	687.0	566.6	3.7413	2.8706
		1606	443.7	527.8	0.1512	2.3041
		1607	384.3	260.2	-0.8395	-1.4323
		1608	291.6	445.7	-2.2319	1.1658
	·	1609	288.9	568.0	-2.2741	2.8740
14727	C6359618	567	173.3	288.8	-4.0245	-1.0365
		568	312.3	128.5	-1.9402	-3.2792
		569	724.1	82.0	4.3643	-3.9349
		577	694.9	253.9	3.8658	-1.5260
		578	771.0	393.8	5.0214	0.5176
14728	J6859688	557	108.5	662.3	-5.1110	4.2291
		562	31.6	34.2	-5.5036	-4.7563
		568	277.6	657.4	-0.9303	4.2618
		569 570	768.7	617.5 440.1	5.0025 -5.1148	3.6435 1.0827
		571	163.7	319.8	-4.1748	-0.6014
		572	245.5	93.2	-2.9547	-3.7916
		573	681.7	129.4	3.6817	-3.2656
		582	734.4	497.3	4.4575	1.9013
•	·	583	588.2	314.7	3.7617	-0.6766
14730	05359758	562	166.5	605.9	-4.1610	3.4092
		572	323.8	670.3	-1.7524	4.3016
	•	573	739.3	694.9	4.5677	4.7706
		574	108.5	426.2	-5.0203	0.8859
		575	244.1	297.9	-2.9577	-0.9063
		534	530.2	399.4	3.6367	0.5099
		585	734.3	48.2	4.5435	-4.4197
		1335	454.2	63.4	0.2164	-4.1901
14302	J6392728	237	582.0	85.7	3.7060	-3.8347
		363	320.7	424.3	-1.7942	0.8609
14328	06395653	400	145.5	640.2	-4.5063	3.8989
!	-	401	235.6	590.0	-3.0939	3.1836

Rev/	DAS Reference	Point	Mean F Coordi		Image Coordinates (mm)	
Frame	Time		x	Ÿ	x _o	y _o
		. >=	200.2			4 1021
14323	05395668	405 433	399.8	42.1	-0.6121	-4.4934
		411	732.3 334.1	176.2	4.4432	-2.6106 2.4763
ŀ		1600 1601	607.2	539.8 335.7	-1.5866 2.5345	-0.3852
		1602	501.2	292.5	0.9306	-1.1265
		1603	290.1	139.2	-2.2751	-3.1336
		1604	587.5	111.4	2.2765	-3.5179
		1605	464.3	346.8	0.3833	-0.2268
İ		1606	307.6	13.7	-2.0223	-4.9173
ļ		1609	120.9	52.8	-4.7751	-4.4233
14830	06395 7 38	404	87.4	480.1	-5.3599	1.6387
· .		405	455.3	615.5	0.2493	3.5311
`]	l	406	442.3	347.6	0.0427	-0.2174
		407	93.0	296.0	-5.1802	-0.9518
		414	648.1	122.8	3.1711	-3.3613
		1604	639.2	670.2	3.0297	4.3370
	ŧ.	1606 1607	363.7 303.1	588.7	-1.0639	3.1556
		1607	201.5	278.1 478.6	-2.0670 -3.6001	1.6231
		1609	197.5	617.3	-3.6847	3.5645
14908	06930528	2208	764.2	105.3	4.9801	-3.6051
		2209	575.3	476.4	2.0563	1.5895
		2210	583.1	39).6	2.1692	0.3867
		2211	766.7	340.9	4.9553	-0.2961
		2212	224.0	11.5	-3.2919	-4.9760
		2213	470.9	20.4	0.4747	-4.7891
		2214	536.5	42.5	2.2421	-4.4758
14410	J5930598	2212	264.0	667.5	-2.6574	4.2679
Ì		2213	503.0	679.0	0.9916	4.4344
.	•	2214	611.6	696.4	2.6167	4.7097
		2219	637.6	419.2	3.0049	0.7869
		2220	532.4	381.6	1.4145	0.2580
1		2221	665.9	224.7	3.4324	-1.9341
		2222	706.6	158.6	4.0612	-2.8546
		2235 22 <i>3</i> 6_	143.1 263.7	37.2	-4.5393 -2.6662	-4.6336 -4.7543
		2237	116.6	25.3	-2.6962 -4.9842	-5.1397
	ļ	2238	233.9	6.1 13.0	-3.0757	-4.8718
14912	36930668	2235	173.5	690.7	-4.0779	4.6099

Rev/ Frame	DAS Reference	Point	Mean I Coord	ixel Inates	Image Coord	linates (mm)
rrame	Time	Time	$\overline{\mathbf{x}}$	Ÿ	xo	уо
14912	06930668	2237	148.0	656.6	-4.4717	4 1202
14912	00920000	2238	265.0	678.8	-2.6575	4.1303
	·	2239	772.3	30.6	5.1707	-4.6755
		2241	711.7	518.9	4.1126	2.2058
		2242	805.5	533.7	5.5555	2.4515
		2254	291.8	43.9	-2.2550	-4.4828
İ		2256	540.2	28.2	1.5368	-4.6782
14914	06930738	2239	786.5	674.4	5.2966	4.5059
		2253	783.3	614.5	5.3061	3.6165
		2254	313.6	696.9	-1.9120	4.6799
		2256	555.3	633.2	1.7659	4.5051
	•	2259	697.7	189.5	3.9172	-2.4211
	•	2260 2273	752.3 203.6	338.4 26.8	4.7448 -3.5983	-0.3333 -4.7579
.•		2279	356.7	49.1	-1.1155	-4.3916
	•	2280	726.8	12.8	4.4567	-4.9200
		2281	327.5	22.3	-1.7163	-4.7831
14916	06930808	2278	220.9	657.6	-3.3348	4.1351
	·.	2279	381.2	685.2	-0.8780	4.5149
		2280	742.1	642.2	4.6005	3.9899
		2281	343.3	658.2	-1.4535	4.1326
	·	2282	671.2	221.5	3.5080	-1.9762
		2283 2284	707.2 807.0	114.2	4.0859 5.5749	-3.4760 0.0687
		2285	719.7	366.2 507.8	4.2348	2.0509
	•	2290	524.6	138.9	1.2848	-3.1278
	•	2291	63.9	290.4	-5.7112	-1.0358
	• .	2292	221.6	65.4	-3.3194	-4.1904
14919	06931158	2283	725.2	695.5	4.3521	4.7749
	•	2290	577.3	675.8	2.0982	4.4070
		2291	201.0	658.4	-3.6451	4.1502
		2292	357.3	547.6	-1.2335	2.5872
		2294	793.0	214.6	5.3348	-2.0642
		2295	637.6	36.6	3.0177	-3.8588
		2296 2297	348.8 201.7	170-1 136:0	-1.3842 -3.6138	-2.6892 -3.1907
					=	
14921	06931228	577	460.1	95.6	0.3058	-3.7334
		2294	669.2	654.8	3.4841	4.1325
		2295	520.6	541.5	1.2363	2.4991
		2296	249.8	613.7	-2.8795	3.5156

Rev/	DAS Reference	Point	Mean P Coordi		Image Coord	dinates (mm
Frame	Time		X	Ÿ	^x o	уо
. (0/ 021 220	2207	11/2		4 0705	
14921	06931228	2297	114.3	577.2	-4.9705	3.0138
		2311 2313	627 . 7	263.1 11.7	2.8460 3.2219	-1.3968 -4.9169
·		2314	805.0	415.2	5.5407	0.7594
14928	06931648	578	145.0	558.9	-4.4773	2.7526
		579	183.8	132.5	-3.3871	-3.2468
		580	461.4	112.7	0.3231	-3.4971
	•	581	637.3	144.7	3.7626	-3.0511
.]		589	627.1	461.8	2.8347	1.3835
	•	590	656.1	295.6	3.2750	-0.9446
		591	777.2	225.9	5.1313	-1.9121
• •		577	56.4	418.6	-5.8357	0.7778
		2307	798.5	166.7	5.4915	-2.7447
		2310	575.1	227.2	2.0472	-1.8989
		2311 2313	171.1	520.1	-4.0710	2.2090
		2314	292:4	337.7 610.7	-3.8278 -2.2251	0.3549 3.4708
14929	06931718	573	39.8	335.7	-6.0852	-0.3992
		579	249.9	668.9	-2.8386	4.2900
		580	510.1	651.4	1.0790	4.0425
		581	725.7	671.3	4.3508	4.4084
		582	103.4	672.7	-5.1246	4.3811
		583	54.3	502.7	-5.8898	1.9623
		586	428.8	121.5	-0.1727	-3.3752
	•	587	342.5	39.8	-1.4871	-4.5340
		588	747.5	113.6	4.7142	-3.4940
		594 595	633.5	458.4 203.3	3.0494 2.9349	1.3356 -2.2360
14931	06931788	584	73.3	601.5	-5.6376	3.3614
		585	125.3	283.2	-4.7557	-1.1258
1		586	491.1	690.9	0.7932	4.6021
		587	407.5	614.7	-0.4755	3.5192
	•	- 588	796.6	670.1	5.4561	4.4445
ļ		598	579.4	430.9	2.1134	0.9432
		599	761.4	144.2	4.9177	-3.0654
		1344	424.0	104.4	-0.2454	-3.6179
		1345	185.0	168.8	-3.8655	-2.7349
15002	06964758	166	499.8	652.1	0.9207	4.0428
		167	371.9	533.1	-1.0156	2.3716
,		199	161.1	414.3	-4.2168	0.7142

Rev/	DAS Reference	Mean Pixel Point Coordinates		Image Coord	Image Coordinates (mm)	
Frame	Time	Time	x	¥	- x _o	y _o
	04044750	250			2 2045	27/00
15002	06964758	258	249.9	168.1	-2.8845	-2.7400
15007	06966508	1004	432.4	355.1	-0.1050	-0.1048
		1006	136.1	663.6	-4.6628	4.2356
	• ,	1007 1008	56.6	495.9 71.4	-5.8482 -3.9904	1.8674
	·	1010	177.6	333.6	-2.8928	-0.3997
		1011	420.0	595.7	-0.2834	3.2579
15009	06966573	1009	357.9	5.91.3	-1.2264	3.1983
		1012	215.8	351.9	-3.3829	-0.1430
		1013	109.9	572.4	-5.0371	2.9470
<i>:</i>	-	1015	198.2	91.4	-3.6713	-3.8248
15011	06966648	1016	279.0	575.0	-2.4255	2.9731
		1017	208.4	317.5	-3.4958	-0.6269
		1018	54.9	340.7	-5.8431	-0.3233
		1019	634.4	263.1	2.9482	-1.3953
		1020	739.5	150.2	4.5736	-2.9692
		1054 1056	675.5	356.4 209.8	3.5682 4.8934	-0.0863 -2.1331
		1000	101.0	209.0	4.0934	-2.1331
15013	06966718	1022	631.6	415.6	2.9031	0.7399
		1023	551.3	374.4	1.6908	0.1595
15027	06967628	403	250.7	71.5	-2.8772	-4.0982
	·	409	474.3	91.9	0.5218	-3.7878
		410	649.9	110.9	3.2011	-3.5237
.		415	646.9	269.8	3.1375	-1.3058
		416 417	572.5 539.9	358.9 544.3	2.0106 1.5284	-0.0605 2.5374
í		1049	471.0	630.2	0.4384	3.7411
		1050	397.9	453.6	-0.5210	1.2696
		1051	695.6	526.4	3.8694	2.3049
		1053	348.3	668.4	-1.3778	4.2761
15028	06967698	408	315.7	628.8	-1.8711	3.7209
	•	409	527.4	646.9	1.3412	3.9807
		410.	694.9	658.5	3.8745	4.1935
ļ		411	103.5	347.9	-5.0995	-0.2148
		413	590.4	61.7	2.2981	-4.2121
		418	659.2	261.1	3.3239 5.3270	-1.4281
1		419	790.9	353.1	5.3279	-0.1246

Rev/	DAS Reference	Point	Mean P Coordi		Image Coord	linates (mm)
Frame	Time		\overline{x}	Ÿ	x _o	уо
						-
13030	53773600	413	635.8	625.2	2.9759	3.6914
		414	63.5	313.5	-5.7153	-0.7112
		420	623.4	347.2	2.7790	-0.2259
		421	751.3	303.5	4.7333	-9.8301
		1503 1509	165.0 372.8	12.2 120.6	-4.1914 -1.0217	-4.9992 -3.3906
		1510	152.1	139.6	-4.3654	-3.1578
		1511	273.6	167.9	-2.5226	-2.7327
		1519	623.8	74.2	2.8078	-4.0406
		1520	755.3	155.1	4.8265	-2.9099
15109	J70J2558	2224	87.7	660.2	-5.4531	4.2075
		2225	380.4	461.8	-0.8872	1.3863
		2226	351.7	619.2	-1.3239	3.5868
		2227	476.2	15.4	0.5581	-4.3597
		2228 2229	276.3 164.3	16.1 17.2	-2.4960 -4.2032	-4.8873 -4.9234
		2230	358.9	9.8	-1.2371	-4.9556
15111	07002628	2227	509.0	586 . 1	1.0669	4.5395
		2228	314.5	685.7	-1.8965	4.5216
	•	2229	205.3	682.5	-3.5748	4.4892
		2230	395.7	680.6	-0.6561	4.4496
		2243	124.6	589.0	-4.8158	3.1784
		. 2245	332.7	500.1	-1.6080	1.9235
		2246 2247	141.3	343.7	-4.5188 2.6900	-0.2669 -4.7705
		2248	485.3	15.0	0.6978	-4.3649
15113	07002698	2247	552.3	637.0	3.2239	4.5982
	·	2248	523.3	695.7	1.2872	4.6760
	·	2263	160.2	321.4	-4.2283	-0.5777
	•	2264	177.5	569.5	-3.9808	2.3995
		2265	405.5	585.6	-0.5031	3.1154
		2266	142.)	402.7	-4.5046	0.5617
		2267	410.1	35.2	-0.4550	-4.5844
		2268 2269	107.7 594.5	35.4 10.5	-5.0879	-4.7062 -4.9294
		22.70	6457	- 44. 9.	2.3800 3.1573	-4.4468
15115	37 002768	2267	458.0	691.3	0.2887	4.6059
•		2263	160.0	679.6	-4.2926	4.4566
		2269	642.4	664.8	3.0731	4.2657
	· '.	22.70	692.9	695.6	3.8542	4.7489

Rev/	DAS Reference	Point	Mean I		Image Coore	Image Coordinates (mm)		
Frame	Time		x	<u> </u>	x _o	уо		
15115	37302768	2272	508.3	582.2	1.0525	3.0697		
		2273	413.0	520.2	-0.3911	2.2000		
•		2274	57.5	281.6	-5.8103	-1.1640		
	·	2286	431.4	72.8	-0.1297	-4.0542		
	•	2287 .	622.9	21.8	2.8154	-4.7720		
		2288	308.8	63.0	-1.9947	-4.2061		
		2289	180.6	160.7	-3.9303	-2.8469		
15118	07003118	2286	528.3	637.7	1.3547	3.8541		
		2287	691.3	648.9	3.8186	4.0568		
•	,	2288	435.3	597.8	-0.0518	3.2878		
		2289 2298	318.0 810.8	627.7	-1.8361 5.7139	3.7080		
		2298	636.8	97.3	3.7764	-3.3671 -3.7123		
		2300	451.3	146.3	0.1701	-3.0238		
	:	2301	178.8	208.3	-3.9521	-2.1690		
15120	07003188	589	453.2	48.3	0.2783	-4.3971		
	3.003130	2298	635.5	584.7	3.7217	3.1348		
		2299	564.5	563.2	1.8996	2.3055		
		2300	342.1	604.8	-1.4678	3.3867		
		2301	94.7	652.2	-5.3301	4.0885		
•	1	2302	793.9	17.4	5.5288	-4.9726		
		2303	653.4	75.3	3.2643	-4.0206		
		2304	505.0	140.5	0.9859	-3.1064		
		2305	278.3	142.9	-2.4531	-3.0784		
15122	37003258	589	360.3	511.5	-1.1915	2.0802		
		590	379.3	230.1	-0.9169	-1.9516		
		2302	689.6	431.4	3.7799	1.6697		
		2303	547.3	538.2	1.6392	2.4528		
	,	2304	405.6	597.4	-0.5025	3.2801		
		2305 2307	192.7 559.6	594.9 22.5	-3.7523 1.8348	3.2550 -4.7602		
	·	2309	774.4	145.4	5.1236	-3.0416		
	·	2310	265.2	121.1	-2.6523	-3.3887		
5127	07003608	589	111.2	318.5	-4.9780	-0.6255		
·		5.9.0	1-26 - 2	1546	-4.7543	-2.9452		
		591	.245.9	78.3	-2.9475	-3.7166		
	.	592	652.0	78.3	3.2419	-3.9807		
		593	757.0	131.6	4.8559	-3.2384		
		608	785.6	391.0	5.2448	0.4101		
		609	546.4	570.8	3.1312	2.9250		

Rev/	DAS Reference	Point	Mean I		Image Coord	linates (mm)
Frame	Time		$\overline{\mathbf{x}}$	Ÿ	x _o	y _o
15127	J70J3608	2302	349.6	330.0	-1.3594	-0.4535
		2303 2304	244.8 142.7	350.2 370.7	-2.9437 -4.4944	-0.1676 0.1147
15128	07003678	581	217.1	558.9	-3.3728	2.7502
		590 591	200.6	693.2 645.0	-3.6577 -1.9755	4.6422
		592 593	692.0 792.5	623.0	3.8253 5.3852	3.6826 4.3249
		594 595	123.5	326.3 73.2	-4.7891 -4.9699	-0.5152 -4.1403
•		596 597	465.6 692.2	80.7	0.3893 3.8697	-3.9454 -4.1396
		605 2307	791.2 325.7	360.4 592.5	5.3309 -1.7165	-0.0215 3.2144
		2309 2310	477.0 122.1	677.7	0.5791	4.4141
15130	07003748	583	294.7	572.6	-2.1978	2.9355
		595 596	189.8	643 . 1 655 . 6	-3.8169 1.2473	3.9323 4.1028
		597 598	739.4 86.7	636.2 299.7	4.5540 -5.3569	3.8948
		599 600	276.4 776.5	32.0 197.0	-2.4928 5.1328	-4.6614 -2.3209
	·	601 602	680.3 624.0	60.5	3.6865 2.7940	-4.2374 3.1128
15131	07003888	596	87.1	555.4	-5.3900	2.7126
	0.00000	597 · 600	277.4 310.0	546.1 166.5	-2.4495 -1.9729	2.5709
		601 602	222.7 173.2	47.8 497.4	-3.3070 -4.0344	-4.4442
		603	791.2	378.4	5.3303	1.8951
	·	604 619	615.5 668.1	463.9 128.6	2.6607 3.4735	1.4143
15202	07036713	166	545.0 391.8	658.8 562.6 =	1.6059	4.1438
		199 258	151.0 202.6	476.7 224.0	-4.3775 -3.5939	1.5891
15211	07038608	1028 1029	84.1 124.3	272 . 9 378 . 0	-5.3954 -4.7757	-1.2790 J.2137

Rev/	DAS Reference	Point	Mean P Coordi		Image Coord	inates (mm)
Frame	Time		x	Ÿ.	×o	y _o
15211	07039608	1030 1031	210.6 477.8	50.2 14.9	-3.4900 0.5833	-4.4166 -4.8657
15213	07038678	1031 1032 1033 1034 1035 1036	519.7 333.0 41.5 163.8 542.3 143.5	674.1 617.8 443.1 334.7 36.3 55.1	1.2292 -1.5301 -6.0699 -4.1722 1.5672 -4.5185	4.3703 3.5680 1.1195 -0.3891 -4.5630 -4.3816
15215	37338748	1035 1036 1037 1038 1041 1042 1043 1044 1045	582.2 189.8 347.6 385.5 741.4 559.6 725.2 437.2 222.0	684.1 693.0 441.8 516.7 566.4 228.6 166.6 41.0 68.8	2.1732 -3.8245 -1.3843 -0.8064 4.5714 1.8143 4.3418 -0.0402 -3.3118	4.5273 4.6407 1.1096 2.1530 2.8964 -1.8755 -2.7394 -4.5005 -4.1419
15218	07039098	1044 1045 1046 1047 4 1048 1053	536.6 365.0 85.1 520.2 624.8 147.4	666.8 621.3 524.2 67.9 406.6 92.5	1.4836 -1.1200 -5.4068 1.2230 2.7997 -4.4495	4.2686 3.6166 2.2665 -4.1215 0.6118 -3.8373
15220	07039168	1047 1049 1050 1051 1052 1053	401.9 216.7 88.2 528.6 769.7 54.0	539.3 451.5 106.8 228.8 134.4 548.7	-0.5577 -3.3635 -5.3566 1.3449 5.0555 -5.9177	2.4677 1.2493 -3.6714 -1.8722 -3.1963 2.6154
15227	C7 J3 9588	415 416 417 422 423 430 1048 1051	113.1 49.0 39.3 728.3 592.9 635.3 176.7 188.0	108.6 189.8 373.8 404.2 121.7 76.6 663.6 377.5	-4.9725 -5.9518 -6.0964 4.3763 2.3274 2.9847 -4.0234 -3.8031	-3.6266 -2.4853 0.1448 0.5858 -3.3724 -4.0030 4.2274 0.2131
		1052	353.6	359.6	-1.2968	-0.0396

Rev/	DAS Reference	Point	Mean I Coordi		Image Coord	linates (mm)
Frame	Time		x	Ÿ	x _o	y _o .
15228	U7 U39658	415	192.0	547.1	-3.7843	3.9906
		418	131.7	92.1	-4.6912	-3.8549
		419	263.2	198.1	2.6770	-2.3040
		423	641.7	661.7	3.0690	4.2201
		426	471.6	16.9	0.4331	-4.8409
		430	683.5	619.5	3.6958	3.6303
15230	07039728	413	140.5	454.8	-4.5345	1.4312
		418	208.4	656.4	-3.5294	4.1188
•	Ì	420	133.1	185.4	-4.6495	-2.5097
		421	256.3	153.7	-2.7777	-2.9316
•		424	744.2	17.5	4.7283	-4.8643
		425	723.8	472.7	4.2937	1.5519
		426	527.1	591.2	1.3382	3.1954
15231	07039868	1513	265.5	646.3	-2.6443	3.9727
		1514	323.3	424.3	-1.7534	0.8668
*		1515	176.0	275.8	-3.9832	-1.2177
		1516	286.7	158.5	-2.3259	-2.8583
		1517	526.2	157.0	1.3069	-2.8782
	Į.	1521	789.1	430.9	5.2959	0.9717
		1522 1523	618.2	546.9 208.2	2.7078 5.0313	2.5799
		1524	426.4	490.8	-0.1873	1.7884
		1530	640.5	10.7	3.0909	-4.9356
15327	07075638	· 592	34.1	164.9	-6.1940	-2.8595
		593	136.8	222.0	-4.5947	-1.9891
		606	596.9	146.6	2.3832	-3.0244
		607	373.3	112.5	-1.0073	-3.5011
		608	190.0	467.2	-3.7754	1.4690
		609	88.5	613.6	-5.3930	3.5314
		610	758.3	321.3	4.8298	-0.5763
		611	753.7	529.4	4.8334	2.3680
15328	37075708	592	125.3	691.2	-4.8693	4.6432
	Į.	597	95.3	178.1	-5.2311	-2.6262
	·	603	574.2	46.7	3.5976	-4.4297
•		604	- 470-1	-1226	0.4556	-3 -3597
		605	192.9	459.9	-3.7311	1.3654
		606	646.6	681.7	3.1423	4.5081
•		607	436.1	653.6	-0.0428	4.0679
		612	789.0 673.3	532.7 198.7	5.3060 3.5489	3.1479
•		615	013.3	1 2001	3.3407	-2.2992

Rev/	DAS Reference	Point	Mean F Coordi	ixel nates	Image Coord	linates (mm)
Frame	Time		X	Ÿ	x _o	уо
15228	J7 J39658	415	192.0	547.1	-3.7843	3.9906
1.7220	0.057050	418	131.7	92.1	-4.6912	-3.8549
•		419	263.2	198.1	-2.6770	-2.3040
		423	641.7	661.7	3.0690	4.2201
		426	471.6	16.9	0.4891	-4.8409
		430	683.5	619.5	3.6953	3.6303
15230	07039728	413	140.5	454.8	-4.5345	1.4312
		418	208.4	656.4	-3.5294	4.1188
	1.	420	133.1	185.4	-4.6495	-2.5097
		421	256.3	153.7	-2.7777	-2.9316
		424 · 425	744.2	17.5 472.7	4.7283 4.2937	-4.8643
		426	527.1	591.2	1.3382	1.5519 3.1954
	·	420	221.1	791.02	1.5552	3.1934
15231	07039868	1513	265.5	646.3	-2.6443	3.9727
		1514	323.3	424.3	-1.7534	0.8668
		1515 1516	176.6 286.7	275.8 158.5	-3.9832 -2.3259	-1.2177 -2.8583
		1517	526.2	157.0	1.3069	-2.8782
		1521	789.1	430.9	5.2959	0.9717
		1522	618.2	546.9	2.7078	2.5799
*		1523	770.4	208.2	5.0313	-2.1673
		1524	426.4	490-8	-0.1873	1.7884
•		1530	640.5	10.7	3.0909	-4.9356
15327	07075638	592	34.1	164.9	-6.1940	-2.8595
		593	136.8	222.0	-4.5947	-1.9891
		606	596.9	146.6	2.3832	-3.0244
•		607	373.3	112.5	-1.0073	-3.5011
	<u></u>	608	190.0	467.2	-3.7754	1
		609.	88.5	613.6	-5.3930	3.5314
		610	7.58 • 3	321.3	4.8298 4.8334	-0.5763 2.3680
•		611	753.7	529.4	4.0004	2.3009
15328	37075708	592	125.3	691.2	-4.8693	4.6432
		597	95.3	178.1	-5.2311	-2.6262
		603	574.2	46.7	3.5976	-4.4297
	<u> </u>	604	470.1	122.6	0.4556	-3.3597
		605 606	192.9 646.5	459.9 681.7	-3.7311 3.1423	1.3654
		607	436.1	653.6	-0.0428	4.0679
•		612	789.0	532.7	5.3060	3.1479
		615	673.3	198.7	3.5489	-2.2992
						

Rev/	DAS Reference	Point		Mean Pixel Coordinates		Image Coordinates (mm)	
Frame	Time		$\overline{\mathbf{x}}$	Ÿ	x _o	уо	
15220	37075708	616	.753.3	433.0	4.7471	0.9971	
15328	51015100	0.10	173.3	455.0	4.1411	. 0.9971	
15330	07075778	600	212.2	319.0	-3.4402	-0.6098	
		601	130.2	182.3	-4.6951	-2.5487	
		602	79.0	659.8	5.5961	4.2050	
	•	603	723.1	609.7	4.2931	3.5044	
		604	528.5	680.5	1.3620	4.4584	
		619	591.4	318.1	2.2945	-0.6333	
•		620	740.2	124.3	4.5949	-3.3439	
15427	37111618	422	131.1	460.8	-4.6788	1.3767	
		427	586.8	67.9	3.7856	-4.1300	
		428	308.0	149.7	-2.0032	-2.9812	
15428	J7111688	427	736.5	612.1	4.5047	3.5455	
		428	379.2	691.5	-0.90/35	4.6033	
		429	617.0	135.7	2.6937	-3.1778	
		434	778.1	105.1	5.2017	-3.6145	
15430	07111758	424	171.1	143.4	-4.0776	-3.0967	
		425	147.3	506.7	-4.4431	2.3607	
		429	567.7	686.0	3.4628	4.5779	
		436	623.3	-313.1	2.7852	-0.7015	
	-	437	641.3	57.7	3.0342	-4.2713	
		1534	198.5	21.4	-3.6769	-4.8441	
		1535	489.5	57.9	0.7556	-4.2650	
15431	07111898	1521	108.1	564.3	-5.06C7	2.8328	
		1523	121.5	342.3	-4.8233	-0.2389	
		1530	45.0	139.0	-6.0277	-3.2309	
,		1540	346.6	603.9	-1.3996	3.4427	
i		1541	543.0	609.5	1.5784	3.4551	
ł		1542	259.9	425.5	-2.7132	0.8840	
		1543	523.3	223.3	1.2621	-1.9526	
	-	1550	703.4	354.5	3.9918 ·	-0.1170	
15527	07147668	610	159.9	396.0	-4.2313	0.4687	
		511	136.9	591.2	-3.8408	3.2043	
		6-13	444-, 5-	1.4.3 9	- ·0.06-9-3···	-3-0591	
		614	689.5	118.6	3.8074	-3.4156	
		629	743.4	402.8	4.5988	0.5699	
·		631	556.8	432.8	1.7752	0.9745	
15528	37147738	603	80.0	150.0	-5.4663	-3.0458	

Rev/	DAS Reference	Point	Mean P Coordi		Image Coord	inates (m
Frame	Time	Time	X	<u> </u>	x _o	уо
					·	·
15528	07147738	612	205.2	661.5	-3.5797	4.192
•		613	504.4	669.1	0.9962	4.295
		614	734.8	641.4	4.4863	3.970
		615	83.3	236.5	-5.4014	-1.087
	· ·	616	161.7	512.5	-4.2129	2.101
		617	250.0	84.0	-2.8854	-3.921
		618	573.4	81.4	2.0356	-3.935
		624	499.4	291.4	0.9045	-1.000
		625 626	593.3	392.7 499.9	2.3237 4.2688	0.413
:		626	721.9	499.9	4.2005	1.937
15530	07147308	617	325.9	657.4	-1.7197	4.121
		618	634.9	652.1	2.9664	4.078
		620	187.3	258.2	-3.8210	-1.469
• •		621	558.2	442.3	3.3044	1.111
		622	793.0	251.2	5.3741	-1.556
		1372	685.9	.20.3	3.7973	-4.807
15531	67147948	618	176.0	545.2	-4.0001	2.555
	•	621	194.1	365.0	-3.7117	0.033
	•	622	318.3	202.0	-1.8458	-2.251
	·	623	402.0	662.0	-0.5602	4.183
15627	07183648	427	67.2	154.9	-5.6763	-2.980
•		433	377.4	36.5	-0.9524	-4.570
15628	07133718	427	158.5	690.3	-4.3271	4.615
		433	441.7	588.3	0.0453	3.152
		434	166.9	227.1	-4.1316	-1.908
		435	551.9	117.1.	1.7006	-3.435
15630	07183738	435	603.5	667.1	2.4932	4.283
		436	60.5	422.8	-5.7717	0.335
•		437	79.3	191.5	-5.4779	-2.441
		438	301.3	158.2	-2.1043	-2.864
		439	779.0	133.1	5.1795	-2.514
		440	717.0	18.2	4.2952	-4.846
15631	J7183928	4 38	164.6	646.4	-4.2128	3.980
		439	597.6	676.9	2.4011	4.420
		440	542.8	531.9	1.5694	2.358
	1	441	692.0	434.9	3.8138	1.005
		442	784.3	363.0	5.2232	0.007
•		443	706.7	656.5	4.0516	4.167

Rev/	DAS Reference	Point	Mean I Coordi		Image Coord	linates (mm)
Frame	Time		X	Y	x _o	y _o
15631	07183928	1200	650.9	57.8	3.2325	-4.2781
13031	01103720	1201	263.3	173.3	-2.6790	-2.6601
•		1546	70.0	246.5	-5.6166	-1.6647
		1547	57.8	78.3	-5.8552	-4.1350
15702	07216758	49	406.8	49.8	-0.5061	-4.3874
	[198	742.6	656.4	4.6065	4.1945
		229	149.2	410.6	-4.3972	0.6671
	1	232	327.4	538.6	-1.6904	2.4556
		233	138.8	170.0	-4.5651	-2.7305
15727	07219628	628	320.3	154.9	-1.8162	-2.9054
	}	629	227.2	257.8	-3.2154	-1.4662
		63Ì	48.4	263.2	-5.9508	-1.4259
		634	669.7	397.1	3.4739	0.4819
		635	717.1	447.2	4.1967	1.1933
		636 637	755.3 541.1	273.8	4.7915 3.0494	-1.2401 -1.4890
	·	638	782.2	141.8	5.2478	-3.0916
15728	C7219698	623	303.6	92.8	-2.0729	-3.7821
		625	75.4	231.0	-5.5333	-1.3769
	l	626	199.7	352.0	-3.6266	-0.1426
		628	383.3	-679.1	-0.8373	4.4295
•]	643	768.5	80.8	5.0654	-3.9562
		644	767.2	277.3	4.9746	-1.1900
15730	07219768	621	154.7	289.5	-4.3137	-1.0297
	,	622	289.7	113.1	-2.2824	-3.4989
	·	623	374.4	660.9	-0.9791	4.1700
		624	81.2	676.2	-5.5705	4.4470
15827	07255678	446	534.5	126.6	1.4356	-3.3033
		447	769.2	60.3	5.0964	-4.2514
		449	614.5	635.5	2.6567	3.8331
15828	07255748	444	93.2	80.2	-5.2375	-4.0570
	· .	445	_ 660.3	59.8	3.3792	-4.2452
		446	568 -1	6.63.3	1.9592	4.2189
		447	795.2	591.9	5.4079	3.2852
		450	611.6	420.7	2.6000	0.8041
15830	07255818	442	213.0	165.6	-3.4401	-2.7734
-		443	121.5	472.1	-4.8306	1.5301

Rev/	DAS	Point	Mean Coord	Pixel inates	Image Coord	linates (mm)
Frame	Reference Time	Forne	\overline{x}	Ÿ.	. x _o	уо
15330	07255818	444	172.4	644.5	-4.0886	3.9540
		445	712.5	622.6	4.1385	3.6834
		452	731.0	96.7	4.4672	-3.7334
		453	666.7	. 345•4	3.4340	-0.2503
15903	J7288788	66	235.2	663.8	-3.1190	4.2115
		160	121.4	617.4	-4.3832	3.5710
		176	230.5	506.2	-3.1658	2.0025
		177	451.6	557.9	0.1903	2.7163
15921	37291238	634	250.9	522.2	-2.8533	2.2360
•		635	319.9	612.2	-1.8063	3.4902
		636	346.9	302.0	-1.4034	-0.8447
	Ì	637	190.1	279.6	-3.7777	-1.1648
		638	364.4	80.4	-1.1506	-3.9521
		639 640	608.6 755.6	518.9	2.5611	2.1859
	j	641	542.1	369.7 49.7	4.7861	0.1061
		642	718.7	50.8	1.5605	-4.3720
15923	07291308	541	444.6	501.2	0.0869	1.9336
		642	615.4	501.9	2.6627	1.9471
	['	645	190.5	29.5	-3.7990	-4.7290
		646	682.2	42.2	3.7245	-4.4906
		647	437.3	56.0	-0.0399	-4.2911
		648	289.9	223.2	-2.2732	-1.9482
15925	37291378	643	87.3	92.4	-5.3683	-3.8827
	ŧ	644	90.0	347.8	-5.3071	-0.2181
	(645	108.7	445.6	-5.0221	1.1599
		646	580.8	466.3	2.1390	1.4443
	·	647	343.4	477.8	-1.4464	1.5103
		648	205.4	632.3	-3.5679	3.7788
		649	758.4	610.4	4.8382	3.5329
	}	651	463.2	256.6	0.3547	-1.4842
	·	652 653	779.8 247.2	154.2 71.9	5.2048 -2.9302	-2.9182 -4.0934
15928	07333450		·			
	07291658	639_	120.5	651.9	-4.9051	- 4.0718
		640	216.5	591.1	-3.3872	3.2011
	1	641	75.8	402.4	-5.5294	0.5510
		642	197.9	419.0	-3.6544	0.7932
		646 649	262.3 397.9	139.5	-2.6956	-3.1293
		0 41 7	371.7	257.7	-0.6338	-1.4669

Rev/	DAS Reference	Point	Mean Coord	Pixel inates	Image Coord	inates (mm)
Frame	Time		X	<u> </u>	x _o	уо
15928	07291658	650	750.9	46.4	4.8133	-4.4454
		665	725.6	393.6	4.3273	0.4358
		666	653.5	498.7	3.2347	1.9060
		667	714.3	659.2	4.1719	4.2201
15929	07291728	646	316.9	673.6	-1.3537	4.3500
		650	781.0	576.3	5.1804	3.0510
		651	232.3	527-2	-3.1278	2.3056
		652	479.8	482.5	0.6178	1.6695
		653	7.2.7	380.8	-5.5738	0.2448
		654	557.5	104.5	1.7873	-3.6128
ĺ		655	604.3	22.3	2.5266	-4.7681
·	•	661 662	667.5	199.2 352.1	3.4531 4.1426	-2.2923 -0.1489
15931	07291798	654	609.1	666.3	2.5759	4.2728
	0.232.30	655	652.3	591.8	3.2194	3.2209
		656	701.7	18.3	4.0500	-4.8423
		657	694.9	175.9	3.8738	-2.6187
.		658	608.1	404.0	2.5453	0.5688
		1380	39.3	90.8	-6.1432	-3.9626
	•	1381	48.0	304.0	-5.9582	-0.8500
		1382	316.1	66.4	-1.8858	-4.1602
16027	07327638	449	86.7	563.7	-5.4008	2.8263
		454	416.2	143.3	-0.3627	-3.0670
ì	•	455	779.1	684.9	5.2267	4.6556
I		456	709.3	364.6	4.0316	0.0273
	·	457	729.1	104.8	4.4332	-3.6142
16028	07327708	445	116.2	16.4	-4.9679	-4.9883
		446	43.1	593.0	-6.1234	3.2495
	·	447	253.9	558.2	-2.8080	2.7379
	·	450	70.3	359.2	-5.6089	-0.0604
		451	378.6	91.8	-0.9337	-3.7933
	'	454	462.0	633.2	0.3523	4.4907
		457	751.3	636.3	4.8972	3.9132
	•	459	740.0	65.6	4.6201	-4.1702
		4óù	711•4_	217.7	.4.1.245	-2.0320
16030	C7327778	445	198.5	584.9	-3.8144	3.1130
ļ		451	433.4	663.0	-0.0074	4.2001
·		. 452	224.5	65.9	-3.2759	-4.1877
		453	148.6	303.0	-4.4059	-0.8425

Rev/	DAS Reference	Point	Mean F Coordi		Image Coord	linates (mm)
Frame	Time		$\overline{\overline{\mathbf{x}}}$	Ÿ	x _o	y _o
1603C	07327778	459	785.1	626.3	5.2625	3.7830
19030	31321110	462	765.2	111.1	4.9951	-3.5309
		463	737.1	401.0	4.5023	0.5394
		1215	412.7	138.5	-0.4164	-3.1382
16031	07327848	459	87.4	526.5	-5.3719	2.2921
•		461	307.3	532.3	-1.9966	2.3673
	•	462	88.1	48.3	-5.3960	-4.5487
		463	44.8	312.8	-6.0080	-0.7312
		464	558.8	402.7	1.7997	0.5465
	ļ	465	556.4	86.0	1.7700	-3.8781
		466 1231	573.9 299.3	652.4 77.2	2.0416 -2.1420	4.0598
16128	07363618	663	667.1	29.7	3.4960	-4.6670
	·	664	384.4	111.5	-0.8450	-3.5128
		665	149.6	360.5	-4.3899	-0.0280
		666	91.4	456.4	-5.2920	1.3121
		667	173.2	628.2	-4.0670	3.7267
		668	774.0	15.2	5.2090	-4.9032
		669	712.3	202.7	4.1394	-2.2394
•		670	669.7	413.0	3.4784	0.7032
		671 672	772.6 762.2	512.3 638.8	5.0450 4.9124	2.1292 3.9516
16129	07363688	650	214.2	570.7	-3.4187	2.9155
		659	550.5	113.8	1.6795	-3.4821
	}	660	281.5	16.0	-2.4174	-4.3885
		661	96.5	183.0	-5.2105	-2.5533
		662	138.5	337.6	-4.5611	-0.3537
		663	699.8	573.0	3.9374	2.9700
		664	431.8	652.8	-0.1077	4.0572
		675 676	698.1	357.9 265.1	3.9113 3.0385	-0.0683 -1.3715
16131	07363758	655	111.8	533.7	-5.0156	3.1043
		657	159.0	134.7	-4.2562	-2.5141
		658	71.5	397.2	-5.5961	0.4746
		659	-601.1 -	681.3	2.4564	4-4885
•	·	660	341.3	593.7	-1.4801	3.2289
		680	704.3	490.6	4.0015	1.8000
		681	602.0	370.9	2.4546	0.1063
		682	622.7	173.0	2.7730	-2.6588
	1	683	721.5	32.0	4.3515	-4.6497

Rev/ Frame	DAS Reference	Point	Mean I Coord		Image Coord	linates (mm)
	Time		$\overline{\mathbf{x}}$	¥	^x o	yo
	·					
16131	07363758	1397	338.1	18.9	-1.5554	-4.8354
16227	67399598	455	234.5	689.4	-3.1311	4.5835
		456	122.6	355.8	-4.8062	-0.0995
	٠.	457	125.2	108.4	-4.7879	-3.6228
	·	458	363.8	131.5	-1.1589	-3.2345
		467	691.2	116.3	3.8346	-3.4503
		468	721.9	397.6	4.2708	0.4904
16223	07399668	457	184.9	637.4	-3.8898	3.8529
,		458	407.1	660.7	-0.4823	4.1672
	·	459	1542	79.2	-4.3481	-4.0275
		460	119.6	222.5	-4.8579	-1.9882
•		461	391.9	107.7	-0.7315	-3.5688
		466	697.9	287.2	3.9106	-1.0622
		467	717-4	639.2	4.2142	3.9238
1623C	07399738	459	217.9	635.3	-3.3740	3.8173
-	•	`461	444.5	. 664 • 5	0.0859	4.2205
•		462	213.4	129.8	-3.4371	-3.2810
		463	172.7	405.6	-4.0370	0.6007
		464	716.4	549.0	4.1857	2.6296
		465	710.9	208.0	4.1181	-2.1688
		1231	433.2	131.7	-0.1029	-2.5333
15327	07435578	668	157.5	56.1	-4.3036	-4.3604
		669	103.8	230.4	-5.0986	-1.8778
	ľ	670	92.2	421.6	-5.4312	0.8220
		671	191.0	532.8	-3.7679	2.3857
		672	201.2	656.7	-3.6418	4.1253
		673	760.4	104.0	4.9232	-3.6269
		674	373.7	141.1	-1.0075	-3.0971
		692	776.6	200.2	5.1338	-2.2719
		693	636.4	270.4	2.9785	-1.2961
		696	734.8	426.5	4.4651	0.9032
		697 698	550.7	646.5	1.6930 3.6011	3.9796 4.1256
16220	07/25//5	1				
16328	_[.0.743.5.64.8	663	119.9	602.2	-4.8987	3.3659
		668	217.5	598.7	-3.3723	3.3067
		673	738.5	631.2	5.3186	3.8598
	· ·	674 675	419.2	679.9 394.8	-0.2987	4.4395
		676	52.2	301.7	-5.0621 -5.8916	0.4460
] 6/6	1 26.6	301.01	-5.0310	-0.0193

Rev/	DAS Reference	Point	Mean P Coordi		· -	inates (mm)
Frame	Time		x	Ÿ	x _o	y _o
	C743564a	677	590.3	35.9	2.3041	-4.5729
15328	01437040	678	418.5	73.1	-0.3257	-4.0524
		679	241.3	91.7	-3.0103	-3.8126
		687	551.2	221.3	1.5872	-1.9784
		690	599.7	552.2	2.4304	2.6528
		. 691	689.1	400.7	3.7720	0.5324
16330	07435718	677	634.2	602.7	2.9484	3.3730
		678	470.3	640.9	0.4769	3.8898
	·	679	302.7	657.9	-2.0758	4.1297
		680	137.6	540.1	-4.5874	2.4373
•		681	48.4	413.9	-5.9509	0.7089
	}	682	71.5	230.8	-5.5946	-1.8835
		684	762.8	422.3	4.3945	0.8467
		685	551.2	406.3	1.6987	0.6020
		686	681.3	209.3	3.6636	-2.1513
		1407	429.0	47.9	-0.1669	-4.4088
16427	07471558	467	60.3	174.7	-5.7795	-2.6994
		468	107.4	439.4	-5.0402	1.0723
	1	470	302.2	30.5	-2.0952	-3.9591
		472	764.7	28.2	5.0489	-4.7124
•		473	634.5	240.4	3.7085	-1.7151
16428	07471628	464	71.6	91.8	-5.6180	-3.9045
		456	92. ó	367.1	-5.2655	0.0526
		470	353.7	623.2	-1.2924	3.6408
		471	445.5	70.4	0.0852	-4.0896
		.472	796.6	564.9	5.4218	2.8940
•		476	756.1	355.1	4.7952	-0.1020
		477	606.8	107.3	2.5431	-3.5739
16430	C7471698	464	149.1	652.4	-4.4537	4.0694
	Ì	465	145.0	331.0	-4.4615	-0.4478
ė		471	499.2	637.8	0.9154	3.8482
		477	656.1	668.0	3.2873	4.3132
		478	550 . 7	457.4	3.1913	1.3214
		1232	616.6	157.3	2.6926	-2.8783
		1233	501.5	92•9	0.9352	-3.7763
		1234	382.1	43.1	-0.8819	-4.4817
	1	1235	761.6	271.3	4.8375	-1.2795
15502	37504598	242	206.6	444.9	-3.5241	1.1516
_		243	366.2	265.3	-1.1151	-1.3654
			•			

Rev/	DAS Reference	Point	Mean Coord:	Pixel inates	1.	linates (mm)
Frame	Time		$\overline{\mathbf{x}}$	Ÿ	x _o	уо
15502	07504598	245	90.0	357.7	-5.3080	-0.0820
		357	493.0	24.7	0.8127	-4.7360
		358.	682.0	363.7	3.6642	0.0069
16527	07507468	692	219.1	42.6	-3.3607	-4.5221
		693	83.1	99.7	-5.4381	-3.7782
		694	368.4	135.8	-1.0379	-3.1706
		695	750.4	128.7	4.7537	-3.2759
		696	193.3	268.2	-3.7283	-1.3240
		697	44.9	472.3	-6.0243	1.5347
		698	164.6	500.9	-4.1663	1.9420
		699	780.7	41.1	5.2977	-4.5262
		700	774.5	290.3	5.0852	-1.0058
		1185 1186	630.6	649.7 499.6	3.4177 2.8905	4.0584
		1187	507.8	404.1	1.0351	1.9168
		1188	369.1	574.2	-1.0554	2.9588
16528	07507538	673	258.5	493.0	-2.7356	1.8288
		688	280.3	110.6	-2.4242	-3.5335
		639	716.8	92.2	4.2479	-3.7886
		690	72.4	381.5	-5.5789	0.2568
٠	·	691	150.3	239.6	-4.3824	-1.7322
		692	280.4	585.6	-2.4051	3.1212
		693	158.1	€33.3	-4.3056	3.8013
		694	424.7	672.0	-0.2154	4.3299
٠		695	784.6	652.8	5.2616	4.1795
15530	07507608	677	122.9	435.8	-4.7999	1.0244
		684	246.9	268.8	-2.9175	-1.3112
		685	49.4	232.1	-5.9365	-1.8705
}		686	176.6	51.0	-4.0126	-4.4252
i		687	94.6	600.9	-5.2987	3.3512
		688	341.1	665.6	-1.4879	4.2367
		689 1415	755.2 450.1	641.0	4.8038 0.1523	3.9791 -3.5638
		1417	470.1	107.9	0.1323	-3.7036
16627	07543448	473	70.0	143.6	-5.6332	-3.1454
		475	384.2	54.7	-0.8483	-4.3143
		485	732.8	295.7	4.4427	-0.9376
		486	721.7	564.0	4,2697	2.8513
16628	07543518	472	235.0	551.4	-3.0961	2.6444
		475	466.9	659.9	0.4261	4.1598

Rev/ Frame	DAS Reference	Point	Mean I Coordi		Image Coord	linates (mm)
	Time		X	<u> </u>	x _o	y _o
						,
16628	07543518	476	186.2	332.3	-3.8322	-0.4211
		479	612.0	25.9	2.6448	-4.7154
•		481	788.8	35.0	5.3906	-3.9001
		482	791.3	543.4	5.3388	2.5823
16630	07543588	478	149.7	489.8	-4.3953	1.7823
		479	696.6	652.5	3.9005	4.1077
		480	702.8	318.6	3.9856	-0.6201
		1232	127.7	193.8	-4.7345	-2.3936
		1241	478.3	137.9	0.5802	-3.1462
16713	07578518	1169	692.6	62.7	3.8786	-4.2018
		1170	700.0	437.2	3.9370	1.0471
		1171	757.2	659.7	4.8350	4.2603
		1172	533.6	356.2	1.4234	-0.0976
		1173	427.1	49.2	-0.1947	-4.3869
	i	1175	77.1	6.6	-5.5919	-5.1750
		1176	249.0	59.1	-2.9038	-4.2738
16715	37578588	1169	758.8	686.2	4.8620	4.5963
		1173	494.6	682.3	0.8469	4.4821
		1175	148.3	622.9	-4.4534	3.6536
		1176	320.2	690.0	-1.8099	4.5818
•	1	1177	778.3	308.3	5.1412	-0.7527
		1178	710.0	578.0	4.0943	3.0485
		1179	555.0	347.6.	1.7468	-0.2166
	1	1183	769.3	38.8	5.1164 1.7801	-4.5557
		1182	556.1 432.3	93.8	-0.1170	-4.6690 -3.7588
		1183	207.7	83.1	-3.5231	-3.9419
		1184	30.7	237.9	-6.2291	-1.7971
16718	07578938	1181	637.0	637.0	2.9969	3.8663
10110	01510550	1182	525.1	644.5	1.3067	3.9495
		1183	356.1	565.2	-1.2520	2.8324
	•	1184	189.8	611.2	-3.7992	3.4833
		1185	477.1	540.4	0.5818	2.4824
		1186	392.4	226.2	-0.7191	-1.9041
		1187	-202.8	58.0	3.6080	-4.3061
		1188	44.3	413.4	-6.0234	0.7032
16727	C7579428	695	35.9	294.1	-6.1456	-0.9906
		699	58.7	213.9	-5.7923	-2.0554
		700	71.2	443.0	-5.6046	1.1225
]	1				

Rev/	DAS Reference	Point	Mean I Coordi		1	linates (mm)
Frame	Time		$\overline{\overline{\mathbf{x}}}$	Ÿ	×o	yo
16727	C7579428	701	126.2	70.3	-4.7809	-4.1720
		702	722.3	59.6	4.3424	-4.2500
	·	710	717.6	236.4	4.2171	-1.7678
		711	`773.4	334.8	5.0609	-0.3831
	·	712	776.5	451.5	5.1003	1.2657
	• .	713	710.3	552.0	4.1037	2.8189
		714	726.9	633.0	4.3588	3.8425
		1189	384.0	590.8	-0.8297	3.1897
		1190	726.3	633.5	4.3497	3.8494
		1191	295.6	657.6	-2.1841	41286
		1192	634.2	604.7	2.9486	3.4048
16728	C7579498	689	49.3	366.4	-5.9331	0.0397
		701	223.0	681.4	-3.3075	4.4721
*	,	702	786.5	657.1	5.2924	4.2442
•		703	303.8	31.9	-2.0753	-4.6540
		704	485.4	65.3	0.6922	-4.1595
		705	673.0	20.6	3.5921	-4.7965
		717	688.1	517.0	3.7560	2.1722
		718	776.2	107.6	5.1696	-3.5770
16730	07579568	703	387.7	654.8	-0.7770	4.0836
		704	561.3	682.5	1.8566	4.4950
		705	741.3	635.5	4.5836	3.8870
	· ,	706	215.4	61.3	-3.4147	-4.2548
		708	289.0	112.1	-2.3077	-3.5139
		709	749.4	210.3	4.7067	-2.1322
•		1721	737.6	406.5	4.5099	0.6186
		1424	377.1	19.4	-0.9590	-4.8165
		1425	413.6	317.3	-0.3930	-0.6364
16731	37579708	706	183.9	549.2	-3.8800	2.6122
•		707	622.5	625.6	2.7735	3.6909
•		708	251.0	599.3	-2.8592	3.3105
		709.	674.2	689.7	3.5625	4.6357
		1418	99.5	249.6	-5.1615	-1.6092
		1419	325.3	224.8	-1.7374	-1.9296
-		1420	475.8	344.1	0.5485	-0.2679
		1424	330.0	517.0	-1.6492	2.1560
		1426	618.3	250.6	2.7022	-1.5786
		1428	543.2	30.6	1.5810.	-4.6513
16827	07615338	484	514.2	41.8	1.1362	-4.4866
		485	118.0	230.9	-4.8798	-1.8658
		1		1		

Rev/	DAS Reference	Point	Mean E Coordi		Image Coord	•
Frame	Time		X	Ÿ	x _o	уо
16827	C7615338	486 526	138.4 648.5	501.1 543.9	-4.5702 3.1631	1.9430
		527 530	617.3	389.4 139.5	2.6863 4.2925	0.3695
•		1096 1097 1098	478•2 336•4 741•5	578.6 641.8 623.8	0.5932 -1.5570 4.5820	3.0188 3.9028 3.7185
16328	37615438	481 482	182.5	51.9 500.2	-3.9217 -3.8279	-4.4085 1.9341
		483	401.6 587.4	30.6 647.0	-0.5837 2.2470	-4.6521 3.9959
16830	07615478	479 480 481	120.0 130.0 278.0	610.3 286.3 690.8	-4.8976 -4.6885 -2.4549	3.4807 -1.0780 4.4550
	·	483 1242 1243	493.4 360.0 554.9	663.6 158.6 33.3	0.6766 -1.2164 1.7483	4.2140 -2.8539 -3.9091
		1255	716.6	156.9	4.2387	-2.3813
16902	J7÷48448	242 243 244 245 357 358	242.0 352.0 78.8 97.3 403.9 675.1	514.2 239.8 64.4 465.2 20.3 295.1	-2.9881 -1.3263 -5.5315 -5.2044 -0.4729 3.5635	2.1245 -1.0171 -4.3099 1.4359 -4.7964 -0.9511
16907	07650198	1100 1101 1102 1103 1107 1108 1109 1110	644.2 241.6 372.9 558.5 734.6 731.7 532.2 371.2	662.3 684.5 593.7 648.7 498.2 254.3 126.7 395.5	3.1061 -3.0207 -0.9988 1.8104 4.4615 4.4305 1.4017 -1.0293	4.2330 4.5135 3.2311 4.0143 1.9191 -1.5153 -3.2995 0.4618
16909	07650268	1115	704.6	454.8	4.0076	1.2962
		1116 1117 1113 1119 1120 1121	626.1 792.5 589.0 248.3 687.7 373.3	217.1- 643.7 565.3 12.0 48.4 4.1	2.8234 5.3851 2.2658 -2.9209 3.8093 -1.0080	-2.0409 4.0474 2.8365 -4.9617 -4.4060 -5.0360

Rev/	DAS Reference	Point	Mean I		Image Coord	linates (mm)
Frame	Time		x	Ÿ	x _o ,	y _o
16909	07650268	1122	552.2	18.4	1.7244	-4.3197
16911	67650338	1119	323.2	647.5	-1.7608	3.9821
•		1120	753.5 448.7	676.6 639.7	4.7821 0.1492	4.5125 3.3734
	·	1122	622.1 808.1	554.1 523.4	2.7731 5.5949	4.1046 2.3051
	,	1124	677.1 674.4	468.6 265.3	3.5913 3.5546	1.4874
		1126	433.0 619.6	420.9 49.2	0.6639 2.7521	-4.3846
		1132 1133	458.8 149.3	41.3 23.6	0.2884 -4.4372	-4.4952 -4.8429
		1134 1143	99.5 229.9	26.9 429.7	-5.2241 -3.1678	-4.8459 0.9431
		1144	37.1 24.9	114.0 505.1	-6.1618 -6.3649	-3.6081 1.9970
•		1146	282.4	229.5	-2.3868	-1.S623
16913	07650408	1131 1132	661.7 504.5	689.8	3.3717 0.9979	4.6319
٠	·	1133	202.0	686.1	-3.6297	4.1515
		1134 1137	151.5 789.5	655.9 569.5	-4.4164 5.3121	4.1188
		1139 1141	792.9 524.3	269.4	5.3521 1.2807	1.1990
		1142 1150	544.9 233.4	243.2 420.1	3.1079 -3.1138	-1.6739 0.8094
		1151	382.9 277.3	199.2 267.6	-0.8644 -2.4573	-2.2829 -1.3272
		1161 1162	621.9 166.3	31.8 30.1	2.7959 -4.1614	-4.6294 -4.7321
		1163	393.5 87.0	29.0 27.0	-0.8592 -5.4209	-4.6740 -4.8569
14615	87450475					-0.0676
16915	07650478	1157	598.0 529.2	358.1 319.1	2.3964 1.3575	-0.6131
		1160 1161	738 • 5 67-8 •-7 ·	671.5	4.5209 3.6308	0.9322 4.3782
		1162 1163	227.3 442.3	567.9 672.5	-3.2291 0.0536	4.2790
		1164 1165	150.2 550.3	657.3 80.1	-4.4359 1.6815	4.1397
•		1166	432.5	45.5	-0.1129	-4.4368

Rev/	DAS Reference	Point	Mean F Coordi		Image Coord	inates (mm
Frame	Time		$\overline{\overline{x}}$	Ÿ	×°o	y _o
16915	07650478	1167	61.1	94.9 29.9	-5.7831 -1.4913	-3.8675 -4.6710
16918	07650828	1165	631.7	683.5	2.9180	4.5345
•	,	1166	551.7	626.3	1.7088	3.6968
		1167	254.9	533.2	-2.7915	2.3904
		1168	487.1	587.2	0.7319	3.1416
		1189	139.2	105.6	-4.5714	-3.6509
	• .	1190	657.6	157.3	3.3096	-2.8697
•		1191	25.8	268.1	-6.3028	-1.3633
÷		1192	503.9	96.7	1.0481	-3.7158
16927	07651318	702	99.4	49.1	-5.2123	-4.5111
		710	87.4	210.3	-5.3511	-2.1673
	i '	711	162.1	319.4	-4.1995	-0.6051
		712	178.1	437.3	-3.9552	1.0502
	·	713	129.5	537.6·	-4.7105	2.4552
		714	157.5	612.7	-4.3055	3.5100
		715	491.0	82.3	0.7762	-3.9203
	ļ ·	716	637.7	66.2	3.0250	-4.1479
16928	07651388	702	179.0	625.7	-3.9761	3.6904
		715	549.8	658.2	1.6810	4.1460
	•	716	690.5	639.3	3.8071	3.9170
		717	76.9	469.0	-5.5202	1.4870
•		718	154.1	85.8	-4.3482	-3.9298
		719	345.0	ó5•2	-1.4448	-4-1694
		720	663.6	89.5	3.4191	-3.823
16930	07651458	705	154.5	607.4	-4.3528	3.433
		707	126.4	120.1	-4.7653	-3.4513
		709	172.5	195•7	-4.0505	-2.3529
		718	246.5	695.4	-2.9473	4.665
	<i>:</i>	719	424.8	679.0	-0.2131	4.4260
		720	729.1	689.7	4.4103	4.6863
		721	151.9	383.1	-4.3541	0.286
		722	801.6	418.5	5.4890	0.8016
		723	758.3	184.6	4.8525	-2.4926
		1431	519.7	55•6	1.2167 _	
		1432	354.3	339.4	-1.2886	-0.3240
16931	07651598	722	48.9	427.5	-5.9523	0.904
		723	16.4	222.1	-6.4559	-2.0309
		724	215.2	146.9	-3.3628	-3.0317

Rev/	DAS Reference	Point	Mean I Coordi		Image Coord	Image Coordinates (mm)	
Frame	Time		$\overline{\mathbf{x}}$	<u>Y</u>	x _o	уо	
16931	07651598	725	184.4	289.4	-3.8628	-1.0261	
	′	726	573.1	159.0	2.0204	-2.8497	
		727	369.1	518.3	-1.0549	2.1772	
		.728	699.7	513.1	3.9313	2.1204	
		729	377.7	677.2	-0.9297	4.4035	
		730	747.6	694.0	4.6818	4.7671	
		741	629.7	330-2	2.8738	-0.4587	
	[742	667.2	72.5	3.4794	-4.0631	
		1441	82.1	59.0	-5.4839	-4.3871	
17007	07686108	1061	321.4	47.6	-1.8041	-4.4220	
	İ	1062	631.5	224.1	2.9044	-1.9403	
•	1 '	1063	564.9	402.6	1.8960	0.5541	
		1064	202.0	155.1	-3.6066	-2.9196	
		1065	76.9	295.4	-5.5030	-0.9611	
		1069	78.3	27.6	-5.5588	-4.8562	
17009	07686178	274	451.3	352.6	0.1808	-0.1415	
		1061	403.0	679.6	-0.5439	4.4357	
		1069	167.6	654.7	-4.1643	4.1010	
	1 ,	1070	269.5	230.3	-2.5793	-1.8496	
	1	1071	99.1	352.4	-5.1665	-0.1512	
		1072	145.9	499.4	-4.4545	1.9191	
	•	1074	634.6	40.0	2.9896	-4.5142	
17011	07686248	1074	704.3	637.6	4.0359	4.6396	
		107ö	70.5	535.8	-5.6466	2.4295	
		1079	358∙ მ	677.1	-1.2189	4.3991	
		1030	114.1	16.9	-4.9983	-4.9829	
	,	1081	233.4	190.1	-3.1274	-2.4199	
		1083	630.4	18.5	2.9339	-4.8187	
17013	07686318	1080	208.6	674.3	-3.5236	4.3719	
		1082	48.2	605.3	-6.0503	3.4243	
		1083	715.7	681.9	4.2023	4.5636	
		1085	92.3	443.1	-5.2747	1.1222	
		1086	66.6	125.7	-5.6335	-3.4117	
		1087	315.7	170.0	-1.8848	-2.6949	
		1088	203.4	35.4	-3-6013	-4.6372	
		1091	663.4	27.2	3.4406	-4.6993	
17015	07636383	1088	310.8	677.7	-1.9535	4.4077	
		1089	55.0	459.4	-5.8603	1.3483	
		1090	79.2	607.6	-5.5457	3.4468	

Rev/	DAS Reference	Point	Mean Pixel Coordinates		Image Coordinates (mm)	
Frame	Time		$\overline{\mathbf{x}}$	$\overline{\overline{Y}}$	x _o	уо
			·		·	
17315	J7636383	1091	767.0	664.5	4.9871	4.3418
		1092	160.1	205.9	-4.2350	-2.2096
		1093	433.0	34.6	-0.0274	-4.5912
	•	1098	169.0	21.7	-4.1267	-4.8529
17018	J7636738	526	474.6	56.5	0.5295	-4.2788
		1092	293.8	645.6	-2.1344	3.9583
		1093	553.7	626.6	1.7401	3.7003
		1094	44.0	517.8	-6.0625	2.1776
	•	1095	112.5	632.5	-5.0222 -3.1441	3.7948 -2.8531
		1096 1097	232.5	159.2 333.5	-6.0653	-0.4290
		1098	641.6	235.8	3.0577	-1.7768
	•	1099	347.6	520.6	-1.3810	2.2096
17020)7 686803	526	351.2	515.4	-1.3261	2.1369
11020	3,00000	527	271.3	224.1	-2.5475	-1.9334
		528	785.4	245.3	5.2575	-1.6336
		529	628.4	52.6	2.8861	-4.3360
		1096	126.3	603.1	-4.7957	3.3781
		1098	506.5	677.5	1.0302	4.4169
17022	07636878	483	460.8	37.3	0.3139	-4.5512
		527	176.8	656.4	-4.0215	4.1240
	•	528	558.5	679.9	3.3231	4.4889
		529	510.1	505.9	1.0778	1.9985
		530 531	264.4 785.8	247.7	-2.6543 5.3962	-1.6055 -4.8121
))))	. 100.0	21.4	3.3902	
17024	37686948	483	361.3	474.8	-1.1793	1.5682
		530	178.9	667.9	-3.9906	4.2866
		531	690.4	456.3	3.6409	1.3139
		532	319.5 688.2	24.7	-1.3367	-4.7537
		534	068.2	249.9	3.7652	-1.5801
17325	57687013	532	229.3	449.7	-3.1766	1.2223
		533	669.5	106.2	3.5053	-3.5890
		534	582.7	663.5	2.1791	4.2272
17027	07687228	486	65.3	118.6	-5.7012	-3.5149
	•	439	742.6	21.7	4.7000	-4.8025
		- 490	751.9	262.1	4.7403	-1.4063
	:	528	183.1	524.7	-3.8883	2.2743
		531	317.4	139.7	-1.8606	-3.1212
		Į.			,	

Rev/	DAS Reference	Point	Mean I Coord		Image Coord	dinates (mm)
Frame	Time		x	Ÿ	^x o	y _o
	·					
17028	J7687298	487	415.6	32.7	-0.3706	-4.6219
•		488	119.1	648.4	-4.9244	4.0213
		489	755.3	553.1	4.7845	2.7069
		491 531	770.8 351.4	181.7	5.0514 -1.3311	-2.5328 4.3557
	•	532	96.8	674.0 347.9	-5.2027	-0.2140
		533	477.3	134.3	0.5660	-3.1946
		534	367.7	541.0	-1.0757	2.4924
17030	J7687368	487	452.2	605.3	0.2043	3.3908
•		493	625.9	281.7	2.8196	-1.1420
		494	663.8	19.1	3.5284	-4.8203
	-	533	513.4	696.9	1.1340	4.6914
		1256	60.8	135.9	-5.7800	-3.2693
		1262	277.3	128.1	-2.4696	-3.2926
		1267	775.9	27.0	5.2325	-4.7361
17127	07723208	731	156.1	46.0	-4.3256	-4.5095
	·	732	358.7	83.0	-1:2350	-3.8473
		733	567.1	20.7	1.9521	-4.7875
	•	734	642.2	74.5	3.0922	-4.0334
•		735	755.7	591.0	4.7942	3.2546
		736	721.5	343.2	4.2689	-0.2713
		737	772.6	203.5	5.0694	-2.2264
17128	07723278	727	277.4	31.2	-2.4766	-4.6703
		728	666.3	76.5	3.4643	-4.0082
		729	282.6	226.5	-2.3826	-1.9040
:	, ,	730	727.7	325.2	4.3628	-0.5253
		731	203.2	598.1	-3.5916	3.2983
	•	732	395.3	636.7	-0.6609	3.8293
		733	592.7	570.6	2.3243	2.9119
		734	665.5	615.6	3.4227	3.5661
17130	07723348	724	175.5	180.6	-4.0065	-2.5692
		725	136.2	334.2	-4.5966	-0.4046
		726	561.7	223.3	1.8448	-1.9558
	•	727	330.4	.638.1	-1.6462	3.4300
		7.28	7.05 • 3	63.9.4.	4.0293	3.9206
		741	623.1	422.1	2.7730	0.8237
		742	670.7	135.4	3.5126	-3.1845
		1441	- 39•8	78.9	-6.1452	-4.1494
17202	07756248	256	660.9	584.8	3.3483	3.1191

Rev/	DAS Reference	Point	Mean I Coord:		Image Coord	linates (mm
Frame	Time		X	¥	x _o	уо
17202	37756248	257	265.1	550.2	-2.6379	2.6207
		305	71.9	573.3	-5.6446	2.9593
		306 359	303.8	227.0 290.6	-2.0629 -5.0314	-1.9002 -1.0433
		368	495.6	117.9	0.8444	-3.4294
		382	208.3	95.7	-3.5186	-3.7682
•	•	383	361.9	380.8	-1.1735	0.2506
17227	C7759118	489	83.4	29.6	-5.4762	-4.8218
		490	100.6	259.2	-5.1416	-1.4694
		500	667.5	72.4	3.4855	-4.0654
• *	1	501	731.4	466.3	4.4143	1.4646
	·	503	749.3	136.6	4.7418	-3.1670
17228	C7759188	489	134.5	577.0	-4.6527	3.0070
		491	132.2	214.8	-4.6659	-2.0929
•		492	181.4	28.0	-3.9392	-4.7564
• •		495 498	758•7 466•2	18.0 57.4	4.9623 0.4000	-4.8589 -4.1309
•		500	689.7	610.3	3.7904	3.5011
17230	C7759258	492	241.5	603.6	-3.0054	3.3728
		493	40.0	327.9	-6.0811	-0.5110
		494	90.5	85.6	-5.3233	-3.9794
		495	794.8	580.2	5.3964	3.1140
,		496	635.5	165.3	2.9694	-2.7656
		498 1267	511.2 194.0	640.5 95.9	1.0957 -3.7363	3.8875 -3.7665
17302	07792228	70	755.0	301.9	4.7796	-0.8614
	0,2220	71	552.4	428.9	1.7051	0.9085
		138	647.2	37.3	3.1607	-3.8679
		221	195.5	419.6	-3.6935	0.7911
		222	276.9	454.8	-2.4576	1.2834
		223	269.2	132.5	-2.5923	-2.5359
		236	548.2	101.3	1.6427	-3.6704
		244 361	731.3 386.7	659.7 687.9	4.4302	4.2303 4.5441
		362	53.6 · ·	666.7	-6.0228	4.3137
		367	741.8	465.2	4.5675	1.4389
17328	07795098	735	157.3	594.5	-4.3010	3.2528
		736	93.2	342.4	-5.2576	-0.2926
		737	134.0	213.4	-4.6367	-2.1110

Rev/ Frame	DAS Reference	Point	Mean E Coordi		Image Coord	linates (mm)
rrame	Time		x	Ÿ	xo	y _o
17328	07795098	733	185.0	49.8	-3.8832	-4.4379
		739	579.1	53.4	2.1272	-4.3264
	,	740	736.1	131.1	4.5288	-3.2444
17329	07795168	728	57.7	113.6	-5.8297	-3.5962
	ĺ.	730	114.4	354.8	-4.9308	-0.1163
	ļ	734	73.3	627.7	-5.6593	3.7389
•		7 38 .	239.2	606.7	-3.0405	3.4164
		739	610.8	605.0	2.5975	3.4027
		740	763.5	664.2	4.9346	4.3327
		743	301.3	110.5	-2.1068	-3.5355
		744	445.6	99.3	0.0849	-3.6849
		745	753.8	90.0	4.8276	-3.8243
		746	738.1	328.1	4.5219	-0.4827
		747	792.2	461.4	5.3423	1.4085
17331	07795238	728	122.0	663.4	-4.8925	4.2364
	Ì	741	46.5	443.3	-5.9922	1.1199
		742	100.6	175.0	-5.1483	-2.6691
	·	743	348.7	665.4	-1.3707	4.2324
		744	485.1	653.8	0.7025	4.0743
	1	745	782.0	630.3	5.2177	3.8408
		1451	312.6	313.6	-1.9203	-0.6850
		1452	450.9	178.4	0.1652	-2.5792
		1666	680.5	306.5	3.6464	-0.7925
		1667	625.5	188.5	2.8166	-2.4423
		1668	743.0	32.6	4.6968	-4.6456
		1669	789•9	520.0	5.3138	2.2452
17402	07828138	253	660.3	605.2	3.3399	3.4080
	j .	255	137.2	600.6	-3.8390	3.3284
		256	451.0	432.9	0.1737	0.9696
		259	723.7	97.2	4.3492	-3.7319
		· 3£3	107.1	267.6	-5.0430	-1.3563
		384	351.1	430.7	-1.3346	0.9462
17427	07831008	501	113.0	454.0	-4.9578	1.2788
		502 -	376.1	84.8	-0.9709	-3.8902
		503	993	138.2	-5.1764	-3-2044
		504	766.9	90.5	5.0319	-3.8183
		505	741.2	680.7	4.5952	4.5627
		837	558.6	644.7	3.3265	3.9824
		838	512.0	539.5	1.1112	3.1723

THE PARTY OF THE PROPERTY OF THE PROPERTY OF THE PARTY OF

Rev/	DAS Reference	Mean Pixel Point Coordinates		Image Coordinates (mm)		
Frame	Time		X	Ÿ	^x o	yo
17428	07831078	495	129.4	53.8	-4.7345	-4.4106
		497	378.5	29.1	-0.9362	-4.6771
	. ,	500	79.7	612.9	-5.5368	3.5218
	\	502	417.5	631.1	-0.3230	3.7518
		504	789.0	618.9	5.3204	3.6801
•		506	737.6	298 • 8	4.5159	-0.8941
•		507	704.9	64.4	4.0699	-4.1817
17430	07831148	495	193.5	626.3	-3.7487	3.6932
		496	55.4	207.6	-5.8471	-2.2269
		497	428.9	605.5	-0.1502	3.3921
		507	743.6	626.8	4.6168	3.7612
•		508	683.1	111.7	3.7114	-3.5153
		1277	332.7	104.8	-1.6310	-3.6155
17502	C7864118	171	42.0	441.0	-6.0644	1.0825
		172	151.9	457.7	-4.3589	1.3254
	·	222	562.5	253.1	1.8565	-1.5468
		246	543.4	616.4	1.5808	3.5444
		361	709.3	456.1	4.0755	1.4475
		362	362.2	500.1	-1.1634	1.9128
17522	07866638	780	657.5	83.9	3.3259	-3.8982
		781	721.6	538.2	4.2739	3.2016
17527	C7866988	748	213.0	66.1	-3.3745	4.1724
		749	537.8	101.3	1.4868	-3.6433
		750	774.2	172.5	5.1070	-2.6473
•		780	263.0	170.6	-2.6836	-2.6813
		781	321.8	501.0	-1.7740	1.9445
		783	480.3	457.3	0.6242	1.3278
28 د 1 1	27867358	740	157.0	658.0	-4.3307	4.1506
	, ;	745	132.8	97.0	-4.6734	-3.7835
		746	114.9	322.5	-4.9223	-0.5696
		747	170.5	463.8	-4.0714	1.3794
		748	248.0	591.9	-2.9031	3.2108
		749	551.5	620.5	1.7066	3.6132
		750	778.9	668.7	5.1739	4.4134
	·	751	473.0	67.8	0.5037	-4.1247
		752	771.6	46.6	5.1475	-4.4464
		758	669.1	281.4	3.4738	-1.1417
		759	765.2	465.6	4.9255	1.4629

Rev/ Frame	DAS Reference	Point	Mean Coord	Pixel inates	Image Coord	dinates (mm)
rtame	Time		x	Ÿ	x _o	y _o
17530	C7867128	745	137.7	454.0	_2 0514	. 1001
11330	01001120	751	506.9	654.9	-3.8516 1.0321	4.1001 3.6973
	· ·	752	796.2	592.1	5.4233	3.2895
	1	763	779.7	481.9	5.1497	1.6973
		764	758.2	316.1	4.8303	-0.6497
	1	765	659.3	179.6	3.3314	-2.5649
		766	777.4	61.1	5.2277	-4.2415
		1463	499.5	102.7	0.9043	-3.6368
		1666	96.5	325.6	-5.2059	-0.5297
·	i i	1667	51.7	209-1	-5.9057	-2.2048
	}	1668	173.0	69.4	-4.0631	-4.1593
		1669	194.2	546.4	-3.7210	2.5744
17531	07867268	1450	51.7	541.1	-5.9513	2.5112
	<u> </u>	1457	233.6	445.1	-3.5674	1.1761
		1458	365.3	583.1	-1.1134	3.0833
	,	1459	632.3	519.6	2.9179	2.1990
		1460	194.9	26.0	-3.7322	-4.7748
		1467	788.7	573.6	5.3003	3.0168
		1470	655.1	71.9	3.2924	-4.0697
17607	07901778	857	650.3	28.9	3.2373	-4.6715
		858	465.5	17.1	0.3939	-4.3344
		859 861	178.2	36 .1 283 . 5	-3.9871 4.0730	-4.6377 -1.1071
·				[
17509	67901848	851	385.8	42.9	-0.8237	-4.4779
		852	665.1	589.5	3.4134	3.1963
		353	755.6	488.2	4.7834	1.7827
	•	854 85 7	705.3 748.1	225 .1 560 . 0	4.0307 4.6945	-1.9232 4.2616
		858	569.5	655.3	1.9817	4.1090
		859	290.2	658.7	-2.2667	4.2844
17611	07901918 ·	339	270 5	22.1	2 500/	, , , , ,
11011	37901910	340	270.5 691.4	32.1 403.4	-2.5806	-4.6561
		841	751.5	288.3	3.8077 4.7322	0.573 <u>3</u> -1.0350
		843	597.1	246.8	2.3829	-1.6226
	· 	849	679.3	636.8	3.6354	3.8794
İ		851	486.8	591.1	0.7303	4.6081
17613	C7901988	£ 30	569.1	270.6	1.9537	-1.2894
	11111111	831	689.5	148.8	3.7973	-2.9879
ļ		832	569.6	7.3	1.9973	-4.9718

Rev/	DAS Reference	Point	Mean Coord	Pixel inates	Image Coord	linates (mm)
Frame	Time		x	Ÿ	x _o	y _o
17613	07901988	833	99.0	32.3	-5.2274	-4.7619
		839 842	364.1 768.1	681.0 646.9	-1.1378 5.0064	4.4553
17615	07902058	832 833	658.1	644.0	3.3174 -3.7990	3.9751 4.1609
•		834	532.1	169.1	1.3981	-2.7051
	ĺ	835	489.0	63.8	0.7473	-4.1769
		836	153.6	123.3	-4.3438	-3.3834
17618	07902408	505	802.1	205.1	5.5331	-2.1967
		835	594.1	663.5	2.3513	4.2363
		836	329.6	582.1	-1.6556	3.0713
		837	660.6 427.6	121.1 18.2	3.3626 -0.1873	-3.3759 -4.8216
17627	J7902898	504	137.1	65.4	-4.6133	-4.2350
		505	175.1	647.6	-4.0472	3.9999
		510	416.9	128.8	-0.3511	-3.2692
•		511	502.8	244.6	0.9547	-1.6513
•		512	693.9	68.2	3.8968	-4.1254
		513 523	741.8	440.1 672.9	4.5705 -0.0764	1.0973
		524	442.0	584.9	0.0493	3.1045
	·	525	733.8	344.7	4.4560	-0.2479
		837	88.9	593.5	-5.3833	3.2466
17628	07902968	504	187.9	610.5	-3.8291	3.4735
		506	121.3	287.8	-4.8132	-1.0579
		507	93.9	63.9	-5.2879	-4.2979
		509	422.7	107.8	-0.2622	-3.5656
		510 512	450.7 714.7	669.1 603.9	- 0.1803 4.1723	4.2893
		514	771.0	312.3	5.0297	3.4220
		515	732.0	73.7	4.4923	-4.0529
17630	J790303 <u>8</u>	507	156.9	635.9	-4.3253	3.8357
	·	508	109.8	134.0	-5.0147	-3.2598
		509-	468-1	679.3	-0-4451	4.4351
		515	753.9	635.5	4.9387	3.9035
	·	1288	409•š	62.3	-0.4583	-4.1997
:		1289	730.4	ქ5∙9	4•4645	-3.8814
17707	07937758	920	362.8	600.5	-1.1530	3.3258

Rev/	DAS		Mean I			
Frame	Reference	Point	Coordi		Image Coord	linates (mm
	Time		x	Ÿ	x _o	уо
•			·			
17707	07937758	923	391.3	299.2	-C.7308	-0.3850
		969	719.5	68.1	4.2970	-4.1257
•		970	796.8	300.3	5.4278	-0.8613
	}	971	467.0	431.6	0.4228	0.9613
. •		972	675.0	533.6	3.5620	3.1148
		983	155.2	22.5	-4.3434	-4.8508
	·	989	526.3	19.2	1.3265	-4.8035
17709	J7937828	962	794.0	630.3	5.4040	3.9533
	ľ	973	688.1	113.0	3.7833	-3.4899
•		974	788.9	133.3	5.3568	-3.2089
		975	782.6	328.0	5.2037	-0.4746
	٠.	976	555.1	436.5	1.7504	1.0282
		988	269.9	673.0	-2.5763	4 • 3452
		989	633.3	673.4	2.9498	4.3867
		991	342.9	53.0 '	-1.4790	-4.3393
		992	581.1	21.0	2.1682	-4.7789
17711	07937398	. 977	674.8	56.4	3.0045	-4.2847
		978	778.3	186.5	5.1752	-2.4587
		979	609.3	318.9	2.5672	-0.6148
		580	755.1	367.0	4.7791	0.0697
	1	9.81	615.0	558.4	2.6595	2.7464
		982	773.6	588.9	5.0637	3.2336
	1	991	430.0	687.4	-0.1335	4.5471
		992	663.5	656.2	3.3989	4.1514
		993	464.3	52.2	0.3718	-4.3382
17713	07937968	977	735.0	688.0	4.5003	4.6695
		993	528.5	692.1	1.3648	4.6280
		994	637.6	26.3	3.0404	-4.7067
17715	07938038	994	703.1	650.0	3.9968	4.0771
,		995	266.6	233.8	2.6232	-1.7995
	,	996	365.2	179.4	-1.1196	-2.5587
		997	744.4	572.0	4.6172	2.9782
		999	596.4	157.5	2.3754	-2.8679
	•	1000	506.9	416.7	1.0234.	0.7532
• =		1001	679.6	227.6	3.6359	-1.8893
		1002	775.5	401.8	5.0915	0.5657
17713	C7938388	782	138.2	198.3	-4.5708	-2.3221
-		995	369.7	592.4	-1.0541	4.6172
		996	458.5	690.3	0.2991	4.5927

Rev/	DAS Reference	Point	Mean P Coordi		Image Coord:	iñates (mm
Frame	Time		X	Ÿ	x _o	уо
17720	07938458	782	42.0	543.0	-6.1075	2.5360
11120		783 1670	232.7 774.6	170.3 484.3	-3.1400 5.0721	-2.6974 1.7336
17727	.07938878	750 753	151.6 383.0	129.5	-4.3740 -0.8455	-3.2954 3.647
		754 755	400.9	589.4 647.0	-0.5757 5.0730	4.574
		756 757	387.4 538.9	17.5 36.9	-0.8018 1.5148	-4.837 -4.555
		785 786	609.9 724.9	402.8 466.0	2.5748 4.3161	0.556
•		787 788	461.0 579.0	464.8 192.6	0.3346	1.424
•		789 1670	785.9 257.1	260.0 508.1	5.2650 -2.7650	-1.430 3.437
17728	C7938948	750 752	194.8	649.7 34.1	-3.7414 -4.0321	4.027
	:	756 757	409.2 554.0	546•2 561•0	-0.4474 1.7414	2.564 2.774
		758 759	72.3	250.3 441.2	-5.5806 -4.1203	1.104
		760 761 762	342.7 446.8 603.2	52.1 42.0 93.5	-1.4805 0.1054 2.4898	-4.354 -4.487 -3.765
		790	727.3	361.5	4.3557	-0.013
17730	C7939018	752 760	225.3 334.4	593.1 611.5	-3.2520 -0.8253	3.227 3.476
٠		761 762	432.5 633.9	601.3 644.3	0.6627 2.9511	3.336 3.966
		763 764	208.5 192.8	480.4 315.2	-3.4944 -3.7332	1.652
		765 766	106.4 228.5	175.5 70.4	-5.0583 -3.2143	-2.657 -4.120 -3.317
- 		1471 1472 -1473	462.6 617.9 343.4	125.6 140.0	0.3421 2.7054 -1.4694	-3.117 -4.026
17812	¢7973528	803	515.2	400.0	2.6416	0.498
		804 850	283.6 255.3	220.5 55.4	-2.3836 -2.8138	-2.009 -4.351
		852	74.5	282•4	-5.5609	-1.169

Rev/	DAS Reference	Point'	Mean Pi Coordin		Image Coordina	tes (mm)
Frame	Time		$\overline{\mathbf{x}}$	<u> </u>	^x o	y _o
					•	·
17812	07973528	853 861	105.4 340.6	151.4 507.3	-5.0955 -1.4971	-3.0318 2.0066
17814	C7973598	847 848 849 350 853 854 856	720.7 250.3 82.2 588.6 435.9 275.9 665.9 783.1	213.7 113.7 333.5 611.3 696.2 482.5 138.3 461.4	4.2713 -2.8904 -5.4382 2.2694 -0.0424 -2.4757 3.4402 5.2090	-2.1076 -3.5176 -0.4404 3.4639 4.6476 1.6579 -3.1609 1.3825
17815	07973668	807 840 841 842 843 844 845	653.6 309.4 314.9 152.9 173.1 777.2 173.9 571.7	155.2 660.9 532.3 312.3 560.4 389.1 64.0 665.5	3.2463 -1.9792 -1.8850 -4.3485 -4.0549 5.1172 -4.0598 2.0105	-2.9239 4.1554 2.3551 -0.7283 2.7539 0.3642 -4.2603 4.2360
17816	07973738	824 830 831 832 845 846	792.0 153.1 208.3 70.2 474.3 260.9	357.7 603.1 443.8 372.5 613.7 40.6	5.3363 -4.3934 -3.5124 -5.6238 0.5213 -2.7335	-0.0597 3.3173 1.0915 0.0647 3.4814 -4.5825
17317	C7973808	829 834 835 846	691.0 105.0 43.6 551.3	328.1 532.8 460.9 587.1	3.8002 -5.1002 -6.0511 1.6977	-0.5024 2.3669 1.3494 3.1244
17319	07975068	799 1293 1296 1297 1298	700.1 182.2 120.4 443.9 123.0 399.1	550.4 45.7 566.1 530.1 210.0	3.9365 -3.9246 -4.8654 0.1533 -4.7267 -0.6211	2.6517 -4.4933 2.8596 3.0424 -2.1561
17321)79752)8	1300 1301 1308 1294	110.3 683.7 612.0	340.7 157.6 359.4 77.4	-4.9927 3.7826 2.6064 -4.4336	-0.3092 -2.8635 0.0936 -4.0539

Rev/	DAS Reference	Point	Mean P		Image Coord:	inates (mm)
Frame	Time		X	Ÿ	x _o	y _o
17001	07075200	1205	244.0	111 5	1 0222	2 5201
17821	07975208	1295 1299	246.8 208.6	111.5 651.8	-2.9322 -3.5247	-3.5291 4.0571
		1302	64.1	453.3	-5.7150	1.2679
		1303	478.6	112.4	0.5870	-3.5003
,	· ·	1304	741.6	172.9	4.5956	-2.6558
		1309	706.5	594.8	4.0455	3.2887
		1310	531.7	373.8	1.3957	0.1494
17823	07975348	1295	99.3	610.5	-5.2271	3.4852
		1303	312.4	614.0	-1.9198	3.5133
		1304	561.9	666.5	1.8647	4.2616
		1306	114.3	343.0	-4.9339	-0.2824
		1307	348.9	270.6	-1.3761	-1.2894
17903	08008038	171	414.0	237.8	-0.3943	-1.7534
		172	542.0	226.0	1.5437	-1.9225
		362	769.6	217.6	5.0130	-2.0374
17910	08009508	205	692.3	224.6	3.8315	-1.9303
		921	533.4	159.8	1.4938	-2.9348
		922	746.6	593.6	4.6562	3.2904
		961 962	421.7 97.4	72.3 81.4	-0.2778 -5.2226	-4.0593 -4.0315
		969	153.5	142.4	-4.3436	-3.1116
•		970	314.7	321.0	-1.8882	-0.5761
		971	83.1	571.5	-5.4629	2.9364
		972	327.9	634.3	-1.6865	3.7986
17912	08009578	952	391.3	42.6	-0.7409	-4.4797
		954	531.1	75.8	1.3834	-4.0072
		956	82.0	104.6	-5.4537	-3.7057
		957	797.6	66.7	5.5435	-4.1580
		958	763.2	315.9	4.9067	-0.6455
-		959	592.1	432.4	2.3062	0.9733
		960 961	795.1 709.3	550.7 662.2	5•3966 4•0957	2.6935 4.2652
		962	379.2	656.1	-0.9063	4.1045
		973	33.1	219.2	-5.4169	-2.0411
	· · · · · · · · ·	974	- 179.0 -	192.6	35511	-2.3908
·		975	243.1	372.6	-2.9690	0.1476
		976	89.9	560.7	-5.3438	2.7844
17913	08009648	946	545.9	99.6	1.6106	-3.6729
		949	509.4	274.5	1.0547	-1.2309

Rev/	DAS Reference	Point	Mean P		Image Coord	inates (mm)
Frame	Time		x	Ÿ	x _o	уо
17913	C8009648	950 951	554.5 790.1	440.4 394.3	1.7420 5.3149	1.0845
		952 956	676.5 356.7	634.1	3.5939 -1.2513	3.8408 4.4521
		977 973 979	45.4 173.1 70.9	202.4 273.2 461.3	-6.0066 -4.0371 -5.6113	-2.3018 -1.2537 1.3804
. ·		980 981 982	211.0 160.1 307.3	448.1 676.9 652.0	-3.4557 -4.2977 -2.0050	1.2036 4.4192 4.0489
17916	08.009788	997 999 1000 1001 1002 1003	314.8 80.3 74.6 165.7 294.5 473.5	645.9 317.9 532.6 345.3 471.0 35.7	-1.8890 -5.4552 -5.6041 -4.1446 -2.1878 0.5122	3.9634 -0.6383 3.0966 -0.2374 1.5220 -4.5695
17917	08010068	927 928 929 930 931	442.9 362.5 144.9 156.4 372.6	264.6 66.7 567.0 641.6 666.4	0.0462 -1.1809 -4.4810 -4.3374 -1.0097	-1.3793 -4.1550 2.8590 3.9119 4.2426
		932 933 934 935	384.1 575.4 641.2 727.4	522.5 631.2 480.1 550.4	-0.3298 2.0653 3.0470 4.3710	2.2266 3.7602 1.6359 4.0944
17921	08011188	1482 1489	202.7 533.9	211.0	-3.5909 1.4244	-2.1268 -2.8256
18003	08044018	196 197 368	137.4 368.3 471.1	544.3 491.1 536.8	-4.5913 -1.0694 0.4887	2.5484 1.7948 3.1318
18012	J8J45488	801 802 808 809	387.3 249.9 103.3 36.7	667.3 327.5 452.4 361.0 61.2	-0.7323 -2.8671 -5.1059 -6.1360	4.2625 -0.4849 1.2577 -0.0368 -4.2447
18014	08045558	812 28 806	78.2 262.7 79.0	212.7 464.5 338.0	-5.4909 -2.6707 -5.4756	-2.1350 1.4314 -0.3549

Rev/	DAS Reference	Point	Mean P Coordi		Image Coord	inates (mm
Frame	Time		X	Ÿ	^x o	уо
18014	08045558	810	505.1	577.5	1.0080	4.4173
1001,		811	262.7	649.4	-2.6879	4.0159
		313	365.2	52.1	-1.1335	-4.2080
		314	75.1	167.3	-5.5491	-2.7932
		862	732.3	628.4	4.4412	3.7814
)	863	717.4	222.4	4.2164	-1.9592
		365	581.6	35.7	2.1709	-4.5707
18015	08045628	26	163.4	611.2	-4.2127	3.4882
		27	141.2	379.4	-4.5167	0.2377
•	,	813	641.3	671.9	3.0710	4.3703
		815	46.3	408.3	-5.9841	0.6328
		318 865	459.5 686.3	79.3 319.2	0.2973	-3.9587 -0.6070
		665	000.3	219.2	3.7332	-0.807
13016	JS045698	817	312.7	675.4	-1.9223	4.377
•	·	818	717.7	669.3	4.2288	4.378
		820	111.7	391.8	-4.9692	0.406
	•	822	541.2	45.9	1.5484	-4.425
		823	119.7	24.7	-4.9054	-4.854
		867	770.9	592.0	5.0276	3.278
•		869	715.0	208.7	4.1816	-2.149
18017	08045768	31	173.7	501.5	-4.0272	1.9490
	ļ	33	232.9	107.0	-3.1435	-3.596
		922	788.1	633.3	5.3146	3.894
	· .	823	351.3	592.7	-1.3267	3.217
		327	156.9	426.4	-4.2779	0.895
		328	53.1	278.1	-5.8782	-1.214
•		872	681.0	539.2	3.6550	3.193
		873	331.9	112.3	-0.8821	-3.501
		374	761.2	362.8	4.8732	0.011
18019	08047028	553	701.5	634.1	3.9832	4.588
	l	554	647.3	500.4	3.1482	1.935
		799	165.8	570.7	-4.1602	2.920
	1	1301	176.5	202.8	-3.9874	-2.243
	· ·	1303	92.9	392.4	-5.2573	
		1309	420.9	122.1	-0.2910	-3.357
•	Į	1314	608.1	221.8	2.5496	-1.967
		1315	571.8	23.5	2.0225	-4.739
18021	08347168	1303	61.2	163.5	-5.7677	-2.358
	1	1304	306.3	246.1	-2.0219	-1.626

Rev/	DAS Reference	Point	Mean Pixel Coordinates		Image Coordinates (mm)	
Frame	Time		$\overline{\overline{x}}$	Ÿ	x _o	y _o
18021	03047168	1309	233.6	652.3	-3.1356	4.0611
13021	03047186	1310	85.4	416.8	-5.3793	0.7576
	·	1311	493.7	83.9	0.8172	-3.8985
		1315	371.0	561.8	-1.0253	2.7361
		1316	623.1	629.5	2.7849	3.7540
	•	1318	636.3	443.9	2.9732	1.1351
•		1319	662.9	213.2	3.3817	-2.0244
18023	Ა ᲒᲔ473Ე8	1311	338.9	568.5	-1.5154	2.3745
		1312	285.6	245.7	-2.3358	-1.6366
		1319	497.9	692.3	0.8961	4.6200
•	j'	1320	626.4	464.2	2.3230	1.4112
		1322	415.7	47.0	-0.3700 5.0799	-4.4245
•		1323 1643	775.4 93.5	431.3	-5.2897	1.6791
		1543	93.5	00.1	-5.2891	-4.2241
18025	08047518	1304	125.5	494.1	-4.7720	1.8349
•	,	1311	279.3	363.1	-2.4160	0.0024
		1312	234.9	72.2	-3.1193	-4.1051
	,	1318	400.2	659.3	-0.5903	4.1409
		1319	421.8	478.2	-0.2608	1.6022
18105	08379928	171	392.7	244.0	-0.7166	-1.6676
		172	512.9	213.2	1.1027	-2.1010
	,	362	725.4	170.7	4.3394	-2.6972
18114	J8081468	948	74.6	215.2	-5.5477	-2.1004
		963	51.4	386.2	-5.9097	0.3212
•		964	205.9	522.4	-3.5377	2.2408
		965	116.0	631.9	-4.9672	3.7870
•	,	968	356.2	590.0	-1.2529	3.1802
		1039	121.4	122.9	-4.3405 -1.8132	-3.4094 -3.0224
	·	1040	320.5	146.5	-1.6132	-3.0224
13115	08081538	936	372.7	19.7	-1.0272	-4.3064
		937	422.7	113.3	-0.2642	-3.4127
		940	112.5	339.0	-4.9616	-0.3347
		941	127.1	452.7	-4.7386	1.2643
	– –	942	211.0	545.4	-3.4631 0.2259	2.5629 4.1101
		1039 1040	453.7 664.1	-656.3 688.2	3.4116	4.6183
10117	00001400	021	21/ 0	577.6	_3 4325	3.0139
18117	08081608	931	214.0	360.3	-3.4235 -1.6989	-0.0246
-		933	36101	200.2	-1.0703	-0.0240

Rev/	DAS Reference	Point	Mean P Coordi		Image Coord	inates (mm
Frame	Time		X	Ÿ	x _o	y _o
18117	J8331608	934 935 936 937	249.0 461.4 712.5 765.1	192.1 230.7 564.5 663.2	-2.8936 0.3255 4.1286 4.9580	-2.3858 -1.8404 2.8589 4.3236
16123	08083078	1493 1518	712.3 698.6	72.4 237.4	4.1819 3.9242	-4.066 -1.753
18125	03083218	1491 1492 1493 1494 1495	385.6 297.1 526.5 765.4 622.2	369.7 325.8 563.1 295.8 355.5	-0.3148 -2.1551 1.3258 4.9415 2.7583	0.097 -0.511 2.800 -0.936 -0.109
18203	08115908	305 306 359 382 383	585.7 512.1 281.4 276.9 709.6	580.0 117.4 377.0 89.0 191.0	2.2154 1.0907 -2.3938 -2.4845 4.0942	3.0314 -3.446 0.192 -3.858 -2.418
18212	08117378	682 833 884 885 836 888 889	374.3 137.5 162.2 266.4 708.2 407.6 173.5	571.4 536.4 229.7 501.9 261.1 86.1 63.3	-0.9761 -4.5878 -4.2027 -2.6153 4.0697 -0.4926 -4.0558	2.9193 2.4373 -1.8693 1.9533 -1.4203 -3.8660 -4.2443
18214	03117448	864 887 888 889 890 891 892	358.9 383.1 747.7 505.5 89.1 140.4 352.4	610.1 242.3 653.5 622.6 355.8 88.6 44.9 145.9	-1.2121 -0.8536 4.6831 1.0108 -5.3207 +4.5574 -1.3333 3.5890	3.4609 -1.6784 4.164 3.638 -0.1033 -3.8974 -4.4529
13215	06117518	868 891 892 893 894 895 908	307.5 461.6- 681.3 111.8 168.4 449.8 513.6	633.7 645.6 610.2 331.8 29.9 21.2 397.4	-1.9984 -0.3456 3.6633 -4.9716 -4.1388 -0.1510 1.1237	3.7927 3.9594 3.5007 -0.4368 -4.7311 -4.7758 0.4839

Rev/ Frame	DAS Reference	Point	Mean Pixel Coordinates		Image Coordinates (mm)	
riame	Time		X	Y	x _o .	уо
13215	08117518	909	745.2	138.5	4.6676	-3.1334
18216	08117588	870 894	286.2 475.5	637 . 1 579 . 2	-2.3261 0.5565	3.8412 3.0284
	·	895	771.5	583.5	5.0357	3.1571
		896 897	53.0 70.8	342.4 590.6	-5.8771 -5.6695	-0.3010 3.2078
	-	898	451.4 238.5	30.3 126.0	0.1754 -3.0567	-4.6490 -3.3241
18217	08117653	898 899	764.9 542.2	583.2	4.9340 1.5639	3.1501 4.3890
:		900	164.9	575.2 585.1	-4.1780	3.1187
	·	901	549.3 784.0	507.9 287.6	1.6689	2.0304
		903 904	774.3 594.6	117.8 234.8	5.1355 2.3452	-3.4266 -1.7880
		912	38.9	361.7	-5.3226	-0.0220
18219	08118918	554 564	104.2	524.3 558.2	-5.0991 3.7674	2.2704
		1313 1314	422.7 80.1	656.6 241.1	-0.2459 -5.4583	4.1159 -1.7269
		1315 1316	62.4 314.8	52.2 144.0	-5.8031 -1.9004	-4.5108 -3.0551
		1317 1325	535.3	32.6 341.9	1.4602 2.7892	-4.6112 -0.2897
		1326 1327	782.2 802.9	211.7	5.2164 5.6018	-2.1025 -3.6493
18221	08119058	1316	126.5	677.8	-4.8329	4.4514
		1317	324.5	581.0 492.5	-1.7332 -4.4258	3.0563 1.8251
		1319 1320	192.8 359.8	268.0 37.4	-3.7358 -1.2217	-1.3267 -4.5611
		1321 1323	683.4 519.0	77.8	3.7922 1.2024	-3.4844 -3.9838
- · · ·	· · · · · · · · · · · · · · · · · · ·	1327 - 1329	575.7	639.8 498.6	2.0722 3.3465	3.8906 1.9085
_		1330	591.0	246.8	2.2900	-1.6242
18223	08119198	1320 1321	206.8 516.8	543.4 614.0	-3.5273 1.1824	2.5315 3.5136
		1322	50.1	109.7	-5.9527	-3.6600

Rev/ Frame	DAS Reference	Point	Mean P Coordin		Image Coord:	Image Coordinates (mm)	
rrame	Time		X	Ÿ	^X o	y _o	
			,				
13223	38119198	1323	354.8	582.4	-1.2736	3.0700	
•		1331	752.7	540.8	4.7427	2.5248	
•		1333 1334	501.7 487.7	108.9 271.1	0.9364 0.7251	-3.5541 -1.2870	
18323	08155178	1493	106.0	600.8	-5.1151	3.3509	
		1494 1499	372.3 565.4	363.8 335.2	-1.0149 1.9025	0.0168	
•		1500	676.9	583.5	3.5905	3.1088	
		1501	782.4	602.8	5.2034	3.4341	
		1502	526.4	546.4	1.3262	3.9731	
18403	08137874	177	50.7	551.1	-5.9745	2.6415	
•		196	298.9	516.8	-2.1239	3.5474	
		197	499.3	502.7	0.9082	1.9413	
	·	368	631.6	563.6	2.9041	2.8094	
13419	08190884	564	145.0	603.0	-4.5029	3.4490	
		1324	351.6	588.6	-1.3226	3.1638	
		1325	90.3	393.1	-5.2999	0.4254	
		1326 1327	249.2 279.9	284•2 177•4	-2.3306 -2.4265	-1.0911 -2.5897	
	,	1323	700.4	90.3	3.9928	-3.8106	
		1329	382.3	38.0	-0.8731	-4.5447	
18421	08191024	1321	242.4	181.5	-2.9944	-2.5408	
	,	1327	94.7	680.8	-5.3571	4.5065	
		1328	472.4	607.1	0.5072	3.4203	
		1329	177.4	556.2	-3.9813	2.7133	
		1330	131.1	301.7	-4. 6723	-0.8617	
		1331 1332	500.1 766.6	138.0 62.3	0.9106 5.3530	-3.1412 -4.217?	
•		1338	700.1	488.5	3.9356	1.7755	
•	l ·	1340	749.6	263.0	4.7018	-1.3905	
18423	08191164	1321	103.4	667.4	-5.2003	4.3061	
		1331	336.6	528.4	-1.5541	3.7130	
		1332	591.9	550.8	2.3119	2.6239	
		1333	140.0	170-2	-4-5459	-2.7236	
		1334	134.4	328 • 2	-5.0850	-0.4918	
		1341	757.3	543.4	4.3139	2.5641	
		1342 1343	681.1 627.0	278.5 20.4	3.6553 2.8785	-1.1369 -4.7991	
•		1,770	02100	20.7	2.0127	-701771	

Rev/ Frame	DAS Reference	Point	Mean Pixel Coordinates		Image Coordinates (mm)	
riame	Time		x	Ÿ	x _o	y _o
,						
18521	08227004	1500	417.4	166.9	-0.3432	-2.7342
	•	1501	529.4	207.4	1.3566	-2.1694
•		1502	252.3	213.4	-2.8410	-2.0871
	ļ	1503	720.2	205.5	4.2603	-2.1974
		1504	624.9	32.2	2.8414	-4.6253
4		1505	541.7	485.8	1.5541	1.7188
,		1506	656.3	636.9	3.2888	3.8726
		1507	787.7	502.8	5.2762	2.0025
18523	08227144	1498	333.0	35.0	-1.6324	-4.6047
		1499	181.2	380.9	-3.9093	0.2595
		1500	264.3	643.8	-2.6629	3.9358
		1501	369.4	680.3	-1.0561	4.4442
		1502	117.2	683.5	-4.9915	4.5373
		1503	549 • 2	676.3	1.6755	4.4017
		1504	459.6	515.0	0.3156	2.1240
	ļ. 	1513 1514	788.9	528.2 321.7	5.3001	2.3590
		1514	604.7	195.0	5.4117 2.4931	-0.5694 -2.3522
		1516	681.6	71.9	3.7035	-4.0777
13525	08227354	1496	203.1	531.4	-3.5819	2.3645
		1497	254.7	696.5	-2.8204	4.6798
		1498	575.6	594.5	2.0664	3.2445
18619	08262844	585	600.7	634.6	2.5336	3.8229
		1335	350.0	527.0	-1.3477	3.6993
		1338	437.5	50.6	-0.0367	-4.3609
		1339	703.5	55.7	4.0499	-4.2962
		1345	670.8	524.5	3.4967	2.2799
		1346	673.2	298.7	3.5360	-0.8937
18621	03262984	1331	62.3	211.8	-5.7378	-2.1551
		1332	336.6	157.4	-1.5691	-2.8696
	·	1338	221.0	570.8	-3.3158	2.9191
		1339	476.0	581.0	0.5630	3.0538
		1341	514.1	172.6	1.1246	-2.6583
~		1-347	728.2		4.3757	3.3723
	٠.	1349	786.3	400.0	5.2556	0.5399
•		1350	589.9	431.2	2.2724	0.9542
		1340	293.2	357.0	-2.2112	-0.0710
18623	08263124	1332	190.9	646.8	-3.7996	3.9858
		1341	355.3	661.1	-1.2635	4.1723
			İ			

Rev/	DAS Reference	Point	Mean P Coordi		Image Coord	inates (mm)
Frame	Time Time		$\overline{\mathbf{x}}$	Ÿ	^x o	уо
				·		
18623	03263124	1342	307.5	382.5	-1.9934	0.2806
	·	1343	290.5	118.2	-2.2696	-3.4295
		1351	662.9	450.6	3.3759	1.2263
		1352	747.6	553.2	4.6654	2.7022
		" 1354	747.7	247.4	4.6761	-1.6131
		1355	471.8	269.6	0.4856	-1.3066
18719	08298824	1505	253.7	22.9	-2.8389	-4.7894
•	ļ	1506	361.3	199.7	-1.1358	-2.2704
		1507	517.1	69.7	1.1747	-4.0899
		1508	596.6	442.1	2.3745	1.1121
•		1509	797.2	543.0	5.4286	2.5848
		1510	582.9	565.4	2.1764	2.8433
	·	1511	701.0	590.9	3.9599	3.2341
		1512	729.2	84.9	4.4434	-3.8859
13721	J8298964	1501	65.1	296.1	-5.6924	-0.9516
		1503	253.4	311.2	-2.8165	-0.7134
		1504	177.7	130.5	-3.9796	-3.2736
		1507~	297.9	621.0	-2.1428	3.6168
•		1512	497.0	634.8	0.8819	3.8100
		1513	528.6	185.0	1.3437	-2.4836
		1525	744.3	404.5	4.6127	0.5952
13723	08299104	1513	363.7	694.7	-1.1408	4.4605
		1514	394.2	473.3	-0.6715	1.4967
		1515	211.3	324.9	-3.4459	-0.5628
•		1516	310.4	207.8	-1.9614	-2.2073
		1517	553.5	210.4	1.7320	-2.1888
		1528 1529	138.4	47.8	-4.6007	-4.5276
٠		1529	468.3 638.6	27.5 65.3	0.4440 3.0554	-4.7439 -4.2248
		1730	026.0	0,00	7-0334	-4.2240
18725	08299314	1513	50.8	510.1	-5.9516	2.0653
		1514	80.4	320.5	-5.4597	-0.6085
	[1517	237.2	80.9	-3.0866	-3.9756
		1521	481.7	326.1	0.6345	-0.5235
		1522 1523	348.8	423.9	-1.3707 -0.3035	0.8531
,		1523	180.0	131.6 378.9	0.2035 - -3.9235	-3.2418 0.2268
• • • •]
16819	38334874	559	630.9	571.8	2.3990	2.9410
		1339	171.0	98.5	-4.0837	-3.7291
		1344	323.9	505.0	-1.7411	2.0101

Rev/ Frame	DAS Reference	Point	Mean Pixel Coordinates		Image Coordinates (mm)	
rrame.	Time		X	Ÿ	xo	уо
18819	C8334874	1346	120.5	323.1	-4.8364	-0.5567
		1347	425.2	148.3	-0.2256	1
		1348	685.0	99.5	3.7433	-3.6777
		1356.	611.0	420.0	2.5912	0.8020
		1357	730.7	286.7	4.4120	-1.0592
18821	08335014	1341	63.5	240.7	-5.6394	-1.7399
		1347	235.1	578.7	-3.1193	4.4346
		1348	474.3	633.6	0.5383	3.7919
	1	1349	307.4	489.3	-1.9916	1.7766
•		1350	116.1	495.5	-4.9145	1.3649
	<u> </u>	1351	409.0	58.6	-0.4697	-4.2565
	'	1352 1353	486.1	173.5 201.0	0.7004 4.3870	-2.5748 -2.2618
		1358	786.4	537.4	5.2633	2.4955
•		1360	594.1	293.0	2.3382	-0.9803
		1361	783.3	436.8	5.2917	1.0603
		1362	615.1	60.6	2.6802	-4.2255
18323	08335154	1351	240.4	511.5	-3.0111	2.0357
10025	00333174	1352	314.0	626.6	-1.8970	3.6905
		1353	541.4	544.4	1.5524	3.9465
		1354	352.4	320.7	-1.3136	-0.5862
	•	1355	77.5	313.7	-5.4981	-0.7017
		1362	435.5	513.5	-0.0499	2.1037
		1364	749.4	432.9	4.6866	0.9927
•		1365	693.0	578.0	3.8339	3.0371
		1366	577.7	234.2	2.0865	-1.8034
18903	J3357844	237	-631.9	95.5	2.9246	-3.7506
•		240	222.1	70.6	-3.3131	-4.1289
		363	366.3	*549.9	-1.0920	2.6083
18910	J8369174	1005	434.6	629.1	-0.0634	3.7269
		1006	439.3	325.8	-0.0030	-0.5135
	·	1007	275.5	294.6	-2.4824	-0.9465
		1010	250.3	33.8	-2.7677	-4.6758
		1011	537.0	16.2	1.4896	-4.8443,
13912	08369244	1007	760.8	651.3	4.3923	4.1421
		1008	515.1	292.5	1.1417	-0.9813
		1009	518.1	63.1	1.1906	-4.1143
•		1010	743.6	377.1	4.6021	0.2115
	,	1012	286.5	72.2	-2.3337	-4.0747

Rev/	DAS Reference	Point	Mean P Coordii		Image Coord	
Frame	Time		\overline{x}	Ÿ	x _o	y _o
18912	08359244	1013	376.6	282.7	-0.9541	-1.1134
-		1014	85.6	354.0	-5.3747	-0.1275
18913	C8369314	1012	758.1	404.9	4.8247	0.6079
!		1014	532.9	693.4	1.4318	4.6482
		1015	571.6	282.9	1.9964	-1.1166
		1016	478.7	145.8	0.5865	-3.0276
		1017	289.7	34.3	-2.2852	-3.9014
		1018	229.5	223.4	-3.1857	-1.9482
18919	0.8370854	1509	254.2	587.5	-2.8067	3.1531
		1512	218.8	139.6	-3.3531	-3.1304
	,	1519	483.6	572.9	0.6794	2.9438
		1520	598.7	654.0	2.4172	4.1002
·	- ,	1526	582.1	106.9	2.1638	-3.5699
		1527	792.5 641.1	137.2	5.4102	-3.1497
		1532		453.7	3.0451	1.2788
		1533	766.3	336.3	4.9488	-0.3547
18921	08370994	1512	47.0	659.1	-6.1230	4.2152
		1513	102.3	237.3	-5.1205	-1.7780
		1514	160.0	26.7	-4.2671	-4.7830
	,	1521	617.1	67.1	2.7055	-4.1327
		1522	456.4	166.6	0.2476	-2.7395
	· .	1524	266.0	97.0	-2.6435	-3.7286
		1525 1526	287.4 367.4	473.2 640.0	-2.2956 -1.0846	1.5528 3.8789
	. •	1527	565.9	665.1	1.9264	4.2490
	•	1538	617.1	319.4	2.6836	-0.6086
		1539	762.8	454.7	4.8893	1.3099
18923	08371134	1517	194.1	260.9	-3.7195	-1.4284
	,	1521	438.2	546.6	-0.0086	2.5669
•	·	1522	286.1	641.4	-2.3234	3.3998
	·	1523	423.2	333.9	-0.2471	-0.4050
		1524	110.6	573.6	-5.0275	2.9638
		1529	133.8	73.9	-4.5883	-4.1127
-		1530	302.4	123.4	-2.0907	-3.3541
		1540	670.4	572.6	3.4917	2.9521
		1542	569.8	411.6	1.9682	0.6750
٠.		1543	779.8	211.6	5.1778	-2.1168
18925	08371344	1528	95.2	577.9	-5.2728	3.0259
		1529	376.0	601.7	-0.9507	3.3381
	[

Rev/	DAS Reference	Point	Mean Pi Coordin		Image Coord	inates (mm)
Frame	Time		X	Ÿ	х _о	уо
18925	08371344	1530	526.9	653.0	1.3400	4.0629
		1531	400.8	234.9	-0.5374	-1.3914
19011	08435224	354	83.5	334.5	-5.4047	0.2971
	,	1193	424.2	240.1	-0.2359	-1.7129
		1194	201.4	620.5	-3.6240	3.6117
		1195	685.7	303.4	3.7249	-0.8322
		1196	421.8	634.9	-0.2584	3.8056
		1197	328.3	557.9	-1.6749	2.7297
		2200 2201	382.3 247.7	9.8 35.7	-0.8785 -2.9263	-4.9507 -4.6129
		2202	411.2	31.7	-0.4366	-4.6355
		2203	67.2	104.8	-5.6811	-3.7181
19012	08405294	2200	759.7	564.7	4.8525	2.8771
		2201 '	623.3	589.5	2.7939	3.1861
		2202	787.3	585.4	5.2334	3.1880
		2203	433.2	649.0	-0.0105	4.0033
		2204	772.3	297.8	5.0535	-0.9023
		2206	721.5	304.1	4.2690	-0.8207
		2207	672.6	162.2	3.5371	-2.8052
•	·	2208	137.0	240.7	-4.5874	-1.7234
		2209	221.3	656.0	-3.3233	4.1107
		2210	172.2	582.8	-4.0649	3.0345
	·	2211	279.3	424.8	-2.4138	0.8729
		2215	191.5	17.5 18.1	-3.7840 -1.5464	-4.9032 -4.8439
		2216 2217	338.6 221.2	157.7	-3.3153	-2.8790
		2218	148.1	46.5	-4.4483	-4.506
			·			
19014	03405364	2215	565.2	552.6	1.9105	2.6561
•	·	2216	716.6	559.4	4.1909	2.7832
		2217	595.6	693.9	2.3759	4.671
		2216	520.2	579.7	1.2335	3.0349
		2219	185.1	596.4	-3.8662	3.2748
•		2220	92.8	530.4	-5.3334	3.7697
	· ·	2221	97.8	425.6	-5.1858	0.8780
- ·		2222	904	-348.4	5.2995_	-0.210
	ŀ	2224	495.1	392.4	0.8454	0.4104
		2225	642.9	21.6	3.1256	-4.7777
		2226	704.0	180.5	4.0150	-2.5484
		2231	378.6	104.3	-0.9314	-3.6149
		2232 2233	247.6 113.1	155.3 60.1	-2.9124 -4.9828	-4.3298
_	٥	4233	11701	50.1	7.7020	, , , ,

Rev/	DAS Reference	Point	Mean Pi Coordin		Image Coord	
Frame	Time		x	Ÿ	x _o	yo
	20/25/24	2230	771.8	188.3	5.0640	-2.4361
19015	38435434	2231	749.1	638.2	4.7032	3.9355
	·	2232	613.3	687.4	2.6416	4.5827
	}	2233	470.4	582.6	0.4799	3.0745
	ļ	2239	69.7	207.9	-5.6224	-2.2086
		2241	272.7	634.6	-2.5320	3.8059
•		2242	355.3	590.0	-1.2659	3.1785
		2243	492.8	276.7	0.8043	-1.2030
		2245	625.3	70.2	2.8401	-4.0885
		2246	391.2	56.9	-0.7419	-4.2811
		2251	216.0	85.0	-3.4019	-3.9129
		2252	109.8	71.3	-5.0324	-4.1695
		2253	38.2	163.2	-6.1237	-2.8809
19015	38405504	2251	561.0	504.9	1.3488	3.3957
1,010]	2252	446.7	579.4	0.1209	3.0295
	· ·	2259	89.5	382.5	-5.3096	0.2720
		2260	199.6	463.6	-3.6289	1.4197
	1	2263	398.4	27.3	-0.6324	-4.6957
		2204	525.2	217.3	1.2930	-2.0238
		2265	723.0	92.9	4.3453	-3.7761
		2265	420.3	102.1	-0.2993	-3.6416
		2275	224.5	95.7	-3.2719	-3.7578
		2277	227.8	47.5	-3.2275	-4.4456
10017	. 38405574	2263	747.0	541.6	4.ó557	2.5412
		2266	763.5	617.4	5.0010	3.6456
	· .	2263	559.0	334.0	1.8084	-9.4054
		2272	798.6	48.2	5.5810	-4.4252
		2273	696.2	51.7	3.9373	-4.3553
		2274	305.2	33.0	-2.0492	-3.9618
•		2275	562.3	605.4	1.8633	3.4031
		2277 2282	564.1	555.1	1.8939 -4.9822	2.6923 1.0045
	j	2283	111.0 93.1	434.3 328.0	-5.2576	-0.4939
		2284	277.7	460.7	-2.4420	1.3790
		2235	276.6	631.0	-2.4708	3.7569
1901)	03406334	601	464.5	665.0	0.3904	4.2359
		1348	179.1	129.6	-3.9569	-3.2835
.*		1356	85.9	442.9	-5.3737	1.1263
	,	1357	209.6	321.1	-3.4735	0.5725
	· ·	1358	524.1	52.3	1.2841	-4.1953
•	ļ. ·	1359	775.3	97.6	5.1694	-3.7125

Rev/	DAS Reference	Point	Mean P Coordi		Image Coordinates (mm)		
Frame	Time		x	Ÿ	x _o	y _o	
	22/0/23/	1363	589.4	566.1	2.2743	2.3530	
19019	08406334	1303	709.4	700.1	2.2143	2.3750	
19021	03406974	1353	271.6	254.5 606.6	-2.5452 -2.0926	-1.5083 3.4149	
		1358	300.9	635.9	1.5084	3.8319	
		1359	538.1	1	-4.7302	-0.4167	
		1360	127.5	333.0	-1.9342	1.9629	
		1361 1362	311.1	105.3	-4.0417	-3.6328	
		1364	520.7	54.1	1.2328	-4.3141	
	·	1365	443.4	204.1	0.0529	-2.214	
		1367	509.1	401.1	1.0570	0.5343	
	1	1368	732.8	499.8	4.4353	1.9407	
		1369	698.1	250.6	3.9165	-1.5692	
	20120071			(02.1	2 01/1	3 2/3/	
19103	08439874	167 259	241.1	602.1 54.9	-3.0141 -4.0143	3.3434	
·		25,	1100	3447	7.5173	1.303	
19113	08441464	1019	170.5	486.9	-4.0736	1'.746	
		1020	211.5	336.8	-3,4483	-0.354	
	·	1021	272.4	87.5	-2.5462	-3.360	
	,	1024	121.5	62.2	-4.8549	-4.290	
	· ·	1028	419.1	103.8	-0.3183	-3.616	
		1029	492.6	186.3	0.7979	-2.462	
	·	1054 1056	243.0	550.0 378.8	-2.9730 -2.7474	2.6250	
			1			İ	
19115	C8441554	1021	541.5	681.0	1.5601	4.472	
		1022	190.5	543.7	-3.8056	3.943	
		1023	112.0	641.1	-5.0336	3.9184	
	j	1024	386.8	646.9	-0.7901	3.975	
	,	1030	731.2	445.8	4.4103	1.178	
•	ļ	1032	776.6	328.3	5.1114	-0.469	
		1033	436.7	292.9	-0.0447	-0.972	
	·	1034	516.5	139.8	1.1614	-3.1127	
19116	08441624	1035	201.4	544.2	-3.6104	2.5460	
	·	1036	670.4	476.0	3.4899	1.5930	
		1037	729.3	173.2	4.4022	-2.544	
		1038	792.4 ··· 176.3	225.3 77.4	-4.0088	-1.9114 -4.035	
		1046	110.3	1 11 1	-4.0000	-4.035	
19117	03441904	1037	85.6	237.6	-5.3756	-1.078	
		1038	96.4	356.6	-5.2094	-0.0996	
		1041	359.9	524.4	-1.1962	2.2542	

Rev/	DAS Reference	Point	Mean Pi Coordin		Image Coordi	nates (mm
Frame	Time	·	x	Y	x _o	y _o
19117	03441904	1042	325.7	209.6	-1.7328	-2.145
	00111701	1043	484.3	223.3	0.6713	-1.956
19119	08442884	1526	52.3	154.0	-5.9034	-2.999
		1527	249.6	200.9	-2.8327	-2.260
	,	1532	87.0	486.3	-5.3634	1.733
		1533	208.4	388.7	-3.4939	0.375
		1534	481.3	623.9	0.6520	3.658
		1.535	748.9	- 655.6	4.7055	4.199
	1 .	1536	530.3	164.9	1.3706	-2.759
	'	1537	726.2	168.4	4.3553	-2.709
•		1545	660.7	526.0	3.3443	2.300
19121	08443024	1527	98.1	681.7	-5.2978	4.521
	İ	1536	343.8	655.4	-1.3689	4.096
	1	1537	529.0	657.0	1.3665	4.129
		1538	164.7	354.8	-4.1570	-0.104
		1539	293.6	505.4	-2.2013	2.001
	.]	1540	430.0	167.6	-0.1535	-2.725
	1 .	1541	615.4	180.6	2.6595	-2.547
		1546	781.2	685.5	5.2145	4.671
		1547	759.7	534.6	4.8481	2.446
•	·	1548	776.1	357.3	5.0968	-0.054
	· .	1549	572.8	314.4	2.0136	-0.679
19123	03443164	1521	. 35.4	592.0	-6.2475	3.237
		1523	37.7	334.8	-6.1221	0.298
		1540	251.5	649.6	-2.3592	4.017
		1541	424.6	660.2	-0.2160	4.160
		1542	169.1	476.6	-4.0943	1.600
-	•	1543	406.4	300.6	-0.5027	-0.870
		1544	551.4	62.1	1.7005	-4.207
		1550	561.7	439.4	1.8494	1.064
-		1551 1552	746.6 697.6	536.7 672.2	4.6480 3.9201	2.465 4.399
10202	60475054	1.7		·		·
19203	08475854	147	658.6	382.7	3.3118	0.270
,		149	293.0	371.9	-2.2143	0.131
		198	724	-6331.	-5.2719	4.536
		365 369	724.1 138.7	379.0 630.9	4.3070 -4.6084	0.224 3.767
19221	08479004	1364	105.1	115.7		<u>.</u>
* 2461	00717004	1367	58.3	451.8	-5.0929 -5.0041	-3.526
•	1	1301	د ۰٥٠	451.0	-5.8061	1.247

Rev/ Frame	DAS Reference	Point	Mean Pi Coordin		Image Coordinates (mm)	
rrame	Time		X	Y	^x o	y _o
19221	08479004	1363	263.3	574.9	-2.6649	2.9743
	İ	1369	253.1	323.3	-2.8183	-0.5364
		1370	294.6	67.3	-2.2137	-4.1453
•)	1371	778.1	103.8	5.2007	-3.6277
		1375	713.5	567.0	4.1457	2.8935
		1376	559.3	620.2	1.8245	3.6116
		1379	559.7	377.5	1.8170	0.2030
19223	08479144	1370	120.3	519.5	-4.8427	2.2008
		1371	579.5	551.1	2.1257	2.6342
	i	1378	591.3	450.0	2.3032	1.2148
19315	03514844	433	563.5	671.0	1.9640	4.3371
		1201	639.1	176.0	3.7869	-2.6069
		1537	207.5	132.7	-3.5203	-2.5213
	1	1545	124.1	541.5	-4.7944	2.5136
		1546	432.6	253.5	0.6483	-1.5224
		1547	466.8	71.9	0.4100	-4.0607
		1560	630.9	503.6	2.8947	1.9775
		1561	781.9	396.7	5.1883	0.4971
19317	38514984	1541	152.5	250.4	-4.3471	-1.5785
		1547	271.6	625.4	-2.5462	3.6803
•		1548	300.2	444.5	-2.1014	1.1510
	•	1549	98•3	330.2	-5.1747	0.2432
		1550	325.3	28.6	-1.7406	-4.6944
		1551	517.2	157.5	1.1720	-2.8680
		1552	448.1	330.4	0.1286	-0.8695
		1558 1559	584.9 773.5	200.9	2.2013	1.4277
		1223	113.5	200.9	5.0844	-2.2599
19319	08515124	1207	519.6	476.5	1.2192	1.5836
		1544	187.5	140.0	-3.8290	-3.1398
		1550	153.7	520.6	-4.3362	2.2162
		. 1551	332.6	645.5	-1.6156	3.9541
-	-	1553	428.0	345.2	-0.1731	-0.2471
·		1559	575.4	632.2	2.0702	4.4947
	}	1562	690.7-	365-7	3.4779	- 0.0384
		1563	667.3	80.3	3.4779	-3.9569
19321	08515334	. 1544	428.0	652.9	-0.1648	4.0568
		1554	360.9	325.4	-1.1893	-0.5212
		1555	573.9	418.2	2.1073	0.7651
		1556	195.2	114.1	-3.7162	-3.5050

Rev/	DAS Reference	Point	Mean Pi Coordin		Image Coordi	nates (mm)
Frame	Time		X	Ÿ	x _o	y _o
					,	
19321	.38515334	1557	412.6	77.5	-0.4174	-3.9933
19323	03515404	1554 1555 1556 1557 1566	436.4 649.2 275.0 485.4 549.9	604.8 694.1 391.2 358.2 536.6	-0.0366 3.1801 -2.4853 0.6945 1.6769	3.3822 4.6837 0.4051 -0.0702 2.4266
1 4325	Ja515014	1207 1544 1553 1554 1555 1562	420.4 153.7 347.3 99.1 291.3 561.3	578.1 395.1 572.3 98.4 188.8 538.7	-0.2804 -4.3273 -1.3877 -5.1953 -2.2491 1.8518	4.4099 0.4539 2.9273 -3.7915 -2.4387 3.1572
19417	0 355 0 894	1372 1375 1376 1377 1383	413.8 428.6 262.7 577.3 727.0	501.2 86.7 121.4 170.3 360.1	-0.3780 -0.1728 -2.6906 2.0851 4.3513	1.9391 -3.8532 -3.3785 -2.6782 -0.0268
19+19	J3551934	1371 1375 1377 1378 1379 1384 1386 1387	338.4 224.8 364.1 364.4 90.8 710.3 631.5 790.2	145.5 595.1 671.2 41:3 391.2 569.3 326.7 310.1	-1.5430 -3.2591 -1.1359 -1.1511 -5.2912 4.1057 2.4494 5.3245	-3.0359 3.2591 4.3187 -4.5029 0.3974 2.9326 -0.5069
19421	08551174	1371 1378 1388 1390	180.8 203.3 638.3 737.9	507.5 509.6 498.8 601.4	-3.9376 -3.5750 3.7596 4.5253	3.4332 2.0615 1.9126 3.3935
19515	05595974	440 441 442 1200 1201 1202	420.2 574.5 673.3 570.6 173.8 699.5	596.4 515.5 453.4 138.9 213.5 158.3	-0.2812 2.0464 3.5333 1.9826 -4.0284 3.9463	3.2708 2.1411 -1.2776 -3.1227 -2.0920 -2.8511
		1560 1561	100.4	521.0 439.5	-5.1584 -2.9420	2.2231 1.0858

Rev/ Frame	DAS Reference	Point	Mean Pi Coordin		Image Coordi	nates (mm)
rrame .	Time		$\overline{\mathbf{x}}$	<u> </u>	x _o	y _o
	000.701/	1 200	242.2		1 (570	(2002
19520	03587914	1200	343.0 464.J	662.8 630.1	-1.4579 0.3827	4.4499
		1203	723.7	532.1	4.2943	2.3957
		1204	575.6	222.9	2.0559	-1.9555
		1205	739.7	140.4	4.5796	-3.1107
		1207	233.0	33.7	-2.3910	-4.6306
•		1558	103.2	493.2	-5.1132	1.8321
		1559	314.2	255.9	-1.9013	-1.4892
	i				~	·
19521	03587154	1204	384.3	695.0	-0.8311	4.6669
•		1205	539.8	617.5	1.5237	3.5669
		1206	732.9	524.8	4.4346	2.2905
		1207	108.0	519.4	-5.0413	2.1967
-		1203	408.4	478.9 326.5	-0.4609	1.6208
		1209 1210	551.1 715.5	312.9	1.6868 4.1765	-0.5151 -0.7002
		1553	34.2	380.6	-6.1776	0.2381
		1562	299.5	428.5	-2.2650	0.2361
	,	1563	307.9	139.2	-2.0062	-3.1311
i						
19619	03522854	1380	.451.3	437.8	0.1856	1.0527
		1381	446.3	647.6	0.1203	3.9896
		1382	713.9	422.9	4.2234	0.8545
		1383	193.2	380.7	-3.7251	0.2632
		1384	441.2	103.6	0.0171	-3.6162
		1385	694.0	28.0	3.9171	-4.6873
·		1392	622.5	333.8	2.7654	-0.4030
19021	08622994	1384	232.2	659.0	-3.1593	4.1557
1 /021	0002277-4	1385	467.0	587.4	0.4232	3.1437
		1386	141.4	337.9	-4.5136	0.4979
		1387	333.1	403.0	-1.6062	0.5705
		1388	451.5	131.2	0.1732	-3.2343
		1389	7,82.3	138.7	5.2511	-3.1341
		1390	494.7	252.5	0.8317	-1.5334
	·	1391	723.8	231.0	4.3890	-1.8402
	•	1393	726.7	636.3	4.3578	3.8923
* *	··· - · · · - · · · · · ·	1.3.9.5	534.5	420.8	1.4391	0.8102
		1396	637.1	473.8	3.8953	1.5665
19623	03623134	1388	261.3	6.03.8	-2.7002	3.3767
19025	00020104	1389	576.7	604.5	2.0845	3.3900
`		1391	522.3	692.7	1.2693	4.6337

Rev/	DAS Reference	Point	Mean Pixel Coordinates		Image Coordi	nates (mm)
Frame	Time	,	$\overline{\overline{x}}$	<u> </u>	x _o	уо
	,					
19714	03658834	442	107.8	463.7	-5.0380	1.4190
		452	607.2	447.3	2.5337	1.1861
		453	524.5	673.5	1.2995	4.3656
		1202	151.6	170.1	-4.3682	-2.7140
		1203	445.7	36.3	0.0375	-4.5604
		1215	786.1	513.6	5.2513	2.1605
		1216	763.1	63.6	4.9921	-4.1922
1971ć	38658974	1203	231.0	606.3	-3.1669	3.415
		1204	105.0	276.6	-5.0737	-1.2170
		1205	282.4	208.6	-2.3874	-2.1516
		1208	157.9	51.5	-4.2993	-4.425
		1211	778.2	53.1	5.2474	-4.353
		1206	503.8	135.0	0.9682	-3.182
		1216	530.1	625.5	1.3827	3.683
		1217	729.0	625.0	4.3900	3.745
		1218	777.8	289.4	5.1363	-1.018
19718	08659114	1205	107.8	691.5	-5.1536	4.659
		1206	309.1	624.1	-1.9722	3.657
		1209	143.3	399.2	-4.4853	0.513
		1210	315.3	403.1	-1.3755	0.569
		1211	576.2	540.7	2.0749	2.438
		1212	497.3	28.1	0.3782	-4.683
		1213	335.0	156.5	-1.5836	-2.884
		1219	743.6	585.4	4.5079	3.166
		1220	777.8	445.9	5.1202 4.6952	1.183
		1221 1222	749.0 503.5	252 . 1 247 . 8	0.9632	-1.609
			i			
19720	08659319	1212	742.0	558.2	4.5738	2.774
		1213	592.5	639.9	2.3279	4.611
19302	03691944	49	703.5	501.5	3.9881	1.950
•		66	560.0	328.1	1.8208	-0.495
		70	132.4	575.3	-4.6825	2.984
•	-	138	294.5	351.1	-2:1925	-0.157
		160	423-4	-236 • 3-	0.2473	-1.072
		161	658.1	446.4	3.3016	1.165
		162	97.2	679.5	-5.3132	4.486
		176	524.3	161.0	1.2767	-2.826
		177	773.4	199.9	5.0810	-2.283
19317	08694834	656	544.0	456.5	1.5340	1.3120

Rev/	DAS Reference	Point	Mean Pi Coordin		Image Coordinates (mm)	
Frame	Time		$\overline{\mathbf{x}}$	<u> </u>	x _o	y _o
				·		
19923	03731144	1211	169.4	579.7	-4.1056	3.0427
• • • • •		1212	153.8	65.1	-4.2507	-4.2285
	}	1219	332.1	648.1	-1.6244	3.9900
		1220	333.2	510.2	-0.8417	2.0601
	, ,	1221	381.3	312.4	-0.8871	-0.7041
		1222	132.4	281.4	-4.6527	-1.1475
		1223	818.6	231.0	5.7807	-1.8373
		1224	730.8	495.5	4.4024	1.8749
		1225	789.7	658.6	5.3412	4.2666
20003	08763834	49	230.4	12.9	-3.1966	-4.9635
•		2.29	150.2	472.5	-4.3879	1.5358
		232	387.9	519.0	-0.7723	2.1769
		233	15.8	238.2	-6.4493	-1.3059
	·	369	307.2	396.8	5.5730	0.4853
20019	08766844	682	391.7	612.5	-0.7142	3,4904
		633	495.7	498.5	0.8596	1.8911
		1394	191.1	126.5	-3.7764	-3.3331
		1397	146.1	445.2	-4.4436	1.1551
		1398	54.9	249.1	-5.3514	-1.6292
•		1399	410.3	151.3	-0.4443	-2.9583
		1400	699.1	112.9	3.9609	-3.4996
	:	1401	313.1	21.9	-1.9363	-4.7984
		1407	743.5	448.8	4.5973	1.2172
		1408	725.9	331.3	4.3367	-0.4408
20021	08766984	1399	199.7	573.8	-3.6676	4.3538
		1400	465.2	637.6	0.3797	3.8415
•		1401	107.0	554.8	-5.0722	2.6941
		1402	15.0	412.0	-6.4843	0.6759
		1403	154.4	398.6	-4.3164	0.4993
-		1404	422.2	204.5	-0.2697	-2.2164
•		1406	675.0	95.8	3.5936	-3.7421
		1409	709.9	499.7	4.0863	1.9269
		1411	711.4	352.3	4.1140	-0.1502
	<u> </u>	1412	767.2	206.2	4.9832	-2.1941
20023	08767124	1404	242.9	656.8	-2.9940	4.1145
		1405	123.1	440.7	-4.7972	1.0859
		1406	480.0	551.4	0.6226	2.6280
		1413	686.0	424.0	3.7213	0.8503
		1578	192.9	411.7	-3.7301	0.6825
		1579	285.3	26.8	-2.3584	-4.7406

Rev/ Frame	DAS Reference	Mean Pixel Point Coordinates		Image Coordinates (mm)		
	Time	·	$\overline{\mathbf{x}}$	Ÿ	x _o ′	y _o
				·		
19317	03694584	657	520.6	595.5	1.2393	3.262
	,	1382	133.7	458.2	-3.8703	1.347
		1385	195.0	81.5	-3.7208	-3.963
		1392 1393	100.3	361.8 167.3	-5.1478 0.2719	-0.013 -2.724
		1394	719.3	123.0	4.2641	-3.347
* ,		1397	695.1	443.3	3.8621	1.209
		1398	587.7	259.5	2.2390	-1.441
19819	08695024	1389	339.5	178.8	-1.5251	-2.565
2,01,		1390	44.7	251.9	-6.0110	-1.443
		1391	272.1	263.9	-2.5373	-1.376
		1593	232.3	634.1	-3.1511	4.228
		1394	473.9	621.9	0.5326	3.628
		1395	64.3	426.9	-5.7039	0.898
	·	1395	215.1	499.1	-3.3954	1.916
		1399	679.9	513.4	3.6423	3.616
		1461	579.5	512.8	2.1245	2.100
·		1402	471.1 617.7	379.0 352.4	0.4314 2.6935	0.228
19321	03595164	1389	170.9	647.5	4 1127	4 000
19321	03395104	1404	659.1	593.8	-4.1127 3.3074	4.000 3.252
	·	1405	520.1	397.3	1.2208	0.478
		1578	535.2	361.2	2.2016	-0.027
19919	J373)864	462	559.8	550.0	1.8236	2.62
		1215	233.9	538.1	-3.1095	2.462
		1216	249.0	101.8	-2.9002	-3.666
		1217	456.3	133.7	0.2464	-3.199
		1229	795.2	18.4	5.5494	-4.852
		1230	774.0	153.1	5.1133	-2.926
		1231	763.3	593.6	4.9103	3.298
19021	03731004	1206	69.3	159.9	-5.6334	-2.904
		1211	355.2	104.0	-1.2833	-3.618
		1216	53.2	628.3	-5.4919	3.761
		1217	237.3	662.4	-3.0731	4.203
•	1	1218 1219	317.9 527.4	337.9 173.3	-1.3376	-0.338 -2.578
		1219	582.8	34.5	1.3271 2.1886	-4.588
		1229	559.0	550.2	1.8169	2.525
		1230	532.9	677.0	1.4231	4.414

HENNIGHT HER STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET STREET

Rev/	DAS Reference	Point	Mean P Coordi		Image Coordi	nates (mm)
Frame	Time		\overline{x}	Ÿ	x _o	yo
	·		•,			
20023	08767124	1580	573.3	466.6	2.0235	1.4403
20231	08335864	66 70 71 139 160 162 233 236	708.9 387.3 112.7 470.4 570.8 380.3 755.9 369.7	74.5 415.9 393.7 153.3 65.5 530.1 466.5 108.5	4.1256 -0.7835 -4.9562 0.4561 1.9936 -0.8838 4.7807 -1.0727	-4.0517 0.7345 0.4219 -2.3639 -4.1693 2.3296 1.4612 -3.5694
20217	C8338804	686 1400 1407 1408 1409 1410 1415	441.1 203.0 224.1 213.1 475.0 790.8 694.4 710.9	645.5 143.6 476.1 353.1 25.7 87.6 693.7 259.6	0.0330 -3.5936 -3.2574 -3.4238 0.5374 5.4169 3.8737 4.1089	3.9608 -3.0779 1.5973 -0.0528 -4.7073 -3.8511 4.7314 -1.4352
20219	08838944	1406 1409 1410 1411 1412 1413 1414 1418 1421 1580	246.8 239.2 536.0 252.8 327.6 482.4 746.0 659.2 817.6 356.5	130.6 534.6 590.8 388.2 249.4 22.3 97.8 506.5 219.6 53.9	-2.9310 -3.0302 1.4723 -2.8203 -1.6995 0.6508 4.6994 3.3215 5.7692 -1.2714	-3.2528 2.4129 3.1954 0.3678 -1.5775 -4.7588 -3.7080 2.0221 -1.9895 -4.3227
20221	08339084	1406 1413 1414 1421 1422	66.2 282.1 533.4 602.2 638.0	531.1 480.1 545.7 656.8 424.1 509.2	-5.7373 -2.3767 1.4303 2.4720 3.7553 -4.1866	3.0769 1.6489 2.5579 4.1364 0.8603 2.0584
20317	08874784	1232 1233 1234 1235 1236 1237	370.1 270.4 166.1 492.1 327.3 326.4	544.0 474.3 415.5 659.3 167.8 10.3	-1.0398 -2.5542 -4.1382 0.8089 -1.7108 -1.7361	2.5379 1.5699 0.7466 4.1580 -2.7202 -4.9530

Rev/	.DAS Reference	1		ixel nates	Image Coordinates (mm)	
Frame	Time		x	Ÿ	x _o	уо
	·					
20317	CB374784	1238	5.71.0	19.7	2.0108	-4.795
		1239	668.2	77.1	3.4929	-3.991
	,	1240	779.0	144.5	5.1953	-3.049
		1241	705.8	504.6	4.0241	2.005
		1244	642.3	320.9	3.0648	-0.584
20319	08874924.	1224	89.6	134.7	-5.3275	-3.259
		1225	116.0	325.0	-4.9060	-0.532
		1226	800.3	145.3	5.5302	-3.041
	· ·	1227	367.0	49.2	-1.1119	-4.391
		1223	591.2	187.2	2.2943	-2.454
*		1236	117.6	677.6	-4.9737 5.3357	4.451
	·	1237 1238	109.2 335.5	534.6 543.8	-5.0254 -1.5647	2.414
		1239	425.7	595.7	-0.1826	3.258
	'	1240	531.7	655.6	1.4077	4.109
		1245	639.7	538.2	3.0308	2.465
•		1246	781.3	558.5	5.1852	2.798
		1247	806.5	493.8	5.5648	1.736
•		1250	743.9	358.9	4.6083	-0.046
20321	08875064	1223	84.2	348.5	-5.3983	-0.207
		1226	602.5	593.8	2.4721	3.241
		1227	189.7	510.2	-3.7842	2.070
		1228	401.2	638.1	-0.5712	3.849
•		1251	567.1	432.3	1.9298	0.972
		1254	727.8	631.5	4.3877	4.561
20403	ს 8907684	242	233.4	421.3	-3.4964	0.823
	ļ ·	243	359.2	205.7	-1.2259	-2.203
		245	68.5	345.3	-5.6395	-0.264
		358	708.9	265.6	4.)775	-1.372
20419	08910694	706	479.7	351.5	0.6088	-0.153
		708	550.7	403.8	1.6813	0.575
		1410	254.5	110.6	-2.8164	-3.533
	······································	1416	156.8	275.1	-4.2836	-1.226
		1418	395.2	30.9	-0.681-5	4-640
		1419	640.9	10.2	3.0975	-4,930
		1420	795.5 642.8	135.7 315.4	5.4534 3.0725	-3.170 -0.658
		1424 1425	668.5	597 . 5	3.4661	3.316
		1460	000.5	J71.5	7.4001	10.00
20421	C3910834	1414	300.8	166.5	-2.1097	-2.741

Rev/	DAS Reference	Point	Mean P Coordi		Image Coordin	Image Coordinates (mm)	
Frame	Time		$\overline{\mathbf{x}}$	Ÿ	x _o	Уo	
20421	38910834	1418	173.3	573.9	-4.0451	2.965	
4,7,21		1419	402.9	553.3	-0.5425	2.667	
		1420	549.4	665.6	1.6763	4.269	
		1421	363.0	297.5	-1.1579	-0.906	
		1422	484.3	55.8	0.6765	-4.238	
	,	1423	740.8	68.6	4.6308	-4.120	
		1426	687.7	575.8	3.7552	3.010	
		1428	617.2	369.1	2.6858	0.038	
20513	08945674	,1240	257.3	169.8	-2.7693	-2.697	
		1241	161.1	525.8	-4.2243	2.293	
		1242	582.6	596.8	2.1727	3.289	
* *		1243	765.6	530.1	4.9401	2.388	
		1244	110.0	332.0	-4.9939	-0.430	
		1245	384.8	53.1	-0.8399	-4.330	
		1246	538.1	97.6	1.4919	-3.700	
		1247	572.0 639.3	17.6 144.5	2.0292	-4.823	
		1248 1257	776.3	363.7	3.8023 5.1025	-3.044 0.031	
20515	03946814	1226	366•3	213.5	-1.1160	-2.082	
	03940514	1228	143.5	236.6	-4.4884	-1.776	
		1245	165.0	593.7	-4.1790	3.242	
		1246	307.4	538.0	-2.0009	3.953	
		1247	337.4	561.9	-1.5367	2.788	
		1248	448.0	677.2	0.1394	4.405	
	•	1249	564.2	694.4	1.9020	4.671	
		1250	281.7	424.9	-2.3830	0.877	
	,	1251	345.7	36.6	-1.4374	-4.575	
		1252	713.0	227.9	4.1474	-1.885	
•		1253	710.4	64.0	4.1552	-4.185	
•		1254	494.8	334.5	0.8370	-0.396	
•		1259	794.9	523.0	5.3906	2.293	
20517	08946954	1226	176.0	676.4	-4.0365	4.407	
		1251	153.9	507.5	-4.3320	2.032	
		1.252	50.0 • 1	636.3	0.9313	4.539	
		1253	499.7	532.0	0.9221	2.362	
20603	08979644	138	645.5	680.7	3.1238	4.486	
] .]	160	696.8	565.0	3.8864	2.845	
		223	226.8	689.8	-3.2526	4.587	
		236	533.5	673.1	1.4333	4.349	

Rev/	DAS Reference	Point	Mean P Coordi		Image Coordi	nates (mm
Frame	Time		$\overline{\mathbf{x}}$	<u> </u>	x _o	Уо
	 			<u> </u>		
•						
20614	03982654	707	392.6	462.3	-0.7013	1.397
•		709	437.5	537.1	-0.0193	2.441
		1419	143.5	32.7	-4.5205	-4.702
		1420	278.0	164.0	-2.4557	-2.776
	·	1424	117.2	318.9	-4.8868	-0.614
•		1425	128.5	588.3	-4.7509	3.172
]	1425 1427	4.31.6 598.4	89.0 132.0	-0.1265 3.9277	-3.820 -2.520
		1431	176.7	416.1	5.1066	0.771
	·	1432	608.4	668.4	2.5639	4.311
		1433	671.3	346.8	3.5114	-0.217
23616	08982794	1422	53.0	80.0	-5.7675	-4.086
		1423	309.0	112.1	-1.9904	-3.509
		1426	196.4	598.0	-3.6956	3.302
		1427	444.6	634.3	0.0861	4.50
		1428	147.5	389.8	-4.4179	0.386
		-1429 1434	736.2 767.3	29.9	4.5879	-4.674
		1434	469.1	543.0 523.5	4.9756 0.4594	2.57
		1437	739.0	371.2	4.5326	0.128
20618	33932934	1423	129.3	573.1	-4.7299	2.956
		1429	536.0	489.1	1.4676	1.76
·		1430	262.2	415.8	-2.6775	0.76
		1438	754.6	592.1	4.7777	3.26
• •		1440	593.0	283.4	2.3962	-1.116
20715	09018554	1243	215.4	546.8	-3.3959	2.584
		1243	165.0	156.0	-4.1673	-2.91
•		1249	285.7	138.8	-2.3330	-2.42
		1255	360.0	630.0	-1.1963	3.740
		1256	510.2	514.8	1.0826	3.53
		1257 1258	232 . 8 767 . 7	380.4 40.0	-3.1241 5.0893	0.259
		1259	551.3	33.6	1.7055	-4.59
		1262	718.9	607.4	4.2361	3.47
		1263	745.3	404.6	4.6235	0.600
20718	09018734	1252	257.3	271.7	-2.7585	-1.268
		1253	275.9	107.6	-2.4906	-3.576
	ļ	1254	33.5	355.1	-6.1852	-0.120
		1258	517.5	533.1	1.1923	3.084
	<u> </u>	1259	310.1	531.9	-1.9525	3.068

Rev/ Frame	DAS Reference	Point	Mean P Coordi		Image Coordi	nates (mm)
rrame	Time		$\overline{\mathbf{x}}$	Ÿ	x _o	y _o
20718	09018704	1250	745.7	43.4	4.7326	-4.484
		1261	738.0	174.8	4.5386	-2.625
	:	1266	494.1	302.7	0.8247	-0.840
20720	39013844	1253	97.5	590.6	-5.2451	3.205
		1260	541.1	522.0	1.5455	2.224
		1261	530.0	648.3	1.3807	4.001
20303	09051674	138	710.5	454.5	4.0949	1.427
		160	731.0	346.7	4.4109	-0.231
•		223	272.2	506.5	-2.5291	2.011
		236	596.1	464.2	2.3675	1.408
20311	09053214	1123	451.9	26.3	0.1851	-4.707
		1134	409.1	55.2	-0.4678	-4.304
		1143	716.4	331.7	4.1923	-0.431
		1144	397.5	156.2	-0.6441	-2.745
	·	1145	569.3	518.2	1.9733	2.173
		1146	664.5	127.7	3.4215	-3.285
		1147	166.7 75.1	62.6	-4.1585 -5.6006	-4.260 -4.585
		1140	25.0	46.4 240.2	-6.3170	-1.768
		1170	201.6	533.5	-3.6055	2.463
		1171	362.9	696.4	-1.1580	4.672
		1172	45.6	567.3	-6.0614	2.879
20312	09053284	1144	762.1	680.8	4.9156	4.582
		1147	522.0	569.9	1.2513	2.898
		1148	421.6	540.4	-0.2539	2.483
		1150	737.3	322.3	4.5107	-0.561
		1151	756.6	50.0	4.9045	-4.390
		1152	704.0	158.2	4.0177	-2.718
•		1177	211.4	406.2	-3.4431	0.615
		1178	232.6	673.7	-2.3836	4.354
		1179	65.1	556.6	-5.7437	2.868
		1180	93.7	133.5	-5.2524	-2.545
20314	09054544	724	-637.3	524.4	2.9929	2.272
		725	594.7	663.8	2.3634	4.239
		1427	163.5	197.0	-4.1351 -3.2927	-2.328
		1431 1433	222.3 125.1	436.3	-3.2827 -4.7669	1.041
		1433	521.0	35.7	1.2321	-3.351
		1435	792.8	135.5	5.4163	-3.173
			1,200		30.103	3,12,13

Rev/	DAS Reference	Point	Point Coording			oordinates (mm)	
Frame	Time		x	Y	x _o	y _o	
20314	09054544	1436	206.1	27.9	-3.5600	-4.735	
	·	1441	506.4	418.9	1.0160	0.787	
,		1442	607.3	170.9	2.5467	-2.676	
•	.•	1443	772.4	348.6	5.0428	-0.183	
20016	09054634	1429	309.9	84.9	-1.9774	-3.889	
		1434	237.3	605.1	-2.3008	3.410	
		1435	542.5	647.7	1.5711	3.998	
		1437	271.5	427.1	-2.5351	0.910	
•		1438	537.3	223.1	1.4765	-1.878	
		1439	743.8	52.4	4.6935	-4.352	
	·	1442	367.6	684.2	-1.0828	4.502	
	,	1444	711.6	676.2	4.1388	4.470	
		1447	671.8	569.5	3.5145	2.915	
;		1448	552.3 725.0	373.2	1.7069	0.144	
		1446	125.0	290.0	4.5250	-7.01.	
23318	J9054824	1429	137.0	550.4	-4.5973	2.634	
		1438	349.8	635.5	-1.3564	4.5.20	
		1439	550.0	515.7	1.5796	2.137	
		1440	221.9	350.9	-3.2901	-0.15	
		1449	697.8	457.2	3.9034	1.752	
		1588	486.2	42.3	0.7075	-4.48	
20011	09088984	1061	730.3	20.9	4.5042	-4.802	
		1064	701.2	183.1	3.9732	-2.507	
		1065	680.6	383.6	-3.6454	0.292	
	•	1067	94.9	199.0	-5.2290	-2.328	
		1069	524.2	155.4	1.2806	-2.896	
		1072	417.7	36.4	-0.3379	-4.565	
20912	09039054	1067	511.3	661.6	1.1030	4.190	
		1070	798.2	206.4	5.4714	-2.177	
-	•	1071	723.6	418.3	4.3892	0.797	
		1075	174.2	91.9	-4.0363	-3.825	
		1076	382.2	119.2	-0.8769	-3.404	
	·	1079	6.93.• <u>.</u> 9	35•5	3,9107	-4.581	
23913	09089124	1075	535.8	553.4	2.2202	2.669	
		1076	306.2	580.9	5.5778	3.134	
	•	1080	553.0	131.8	1.7946	-3.227	
		1081	755•2	191.6	4.3015	-2.388	
		1082	393.0	187.8	-0.7135	-2.444	
j		1034	43.5	50.1	-6.0280	-4.566	

Rev/	DAS Reference	Point	Mean P Coordi		Image Coordi	nates (mm)
Frame	Time		$\overline{\mathbf{x}}$	Ÿ	x _o	y _o
	·					
2) 9 1 3	ე9089124	1085	-349.2	27.2	-1.3830	-4.7100
20914	09389194	1082	805.1	638.2	5.5820	3.9769
	·	1084	430.6	473.5	-0.1258	1.5480
		1085 1086	760.5 572.4	480.0	4.8568	1.6692
		1087	791.6	118.0	5.4077	-3.4246
•	?	1388	633.6	34.5	2.9579	-3.8828
		1089	330.2	93.1	-1.6669	-3.7748
		1090	417.0	190,5	-0.3465	-2.4055
2)313	09090454	494	515.5	573.3	1.1623	2.9489
		1258	238.7	76.1	-3.0578 -4.3732	-4.0302
		1262 1263	153.7 185.2	633.7 434.1	-3.8463	3.8091 1.0084
		1264	762.3	94.3	4.9571	-3.7575
		1265	504.0	25.4	0.9836	-4.7138
t		1267	618.5	556.5	2.7132	3.1470
	•	1263	738.1	320.1	4.5217	-0.5888
20920	09090534	1256	43.4	610.0	-6.1332	3.4981
		1250	321.6	100.6	-1.7332	-3.6699
		1261 1264	293.3 523.3	232.1	-2.2192 1.2805	-1.8220 3.7950
		1265	280.4	569.3	-2.4036	2.8941
-	•	1266	39.0	333.5	-6.0964	-0.4283
		1269	741.5	615.1	4.5811	3.5956
		1271	497.4	292.1	′ 0.8752	-0.9878
		1272	531.4	231.9	2.9030	-1.8317
20922	09090734	1273	783.1	325.4	5.2134	-0.5151
		1274	545.2	437.2	1.6028	1.0344
		1275	750.8	458.6	4.7092	1.3584
-21010	39124894	1107	393.2	506.7	-0.6893	2.0125
	·	1108	242.4	310.7	-2.9807	-0.7231
		1109	22.1	332.0	-5.3619	-0.4550
		1110	61.2	<i>5</i> 27-7-	5-3582 -	-3.7452
		1111	115.9	23.4	-4.9673	-4.9269 -2.7704
		1112 · 1113	366.1 252.7	163.•3 92.7	-1.1212 -2.8433	-2.7786 -3.7949
		1115	329.0	61.5	-1.6871	-4.2227
21011	09124964	1111	507.6	538.0	1.0413	2.4493

Rev/	DAS Reference	Point	Mean P Coordi		Image Coordinates (mm)	
Frame	Time		X	<u>¥</u>	x _o	y _o
	•			·		
21011	39124964	1112	756.6	630.4	4.8302	4.5719
		1113	546.7	615.2	3.1392	3.5556
		1114	722.7	587.0	4.2909	3.1340
		1115	280.8	529.9	-2.3967	2.3406
		1116	91.0	384.5	-5.2869	0.2974
	•	1117	456.3	636.8	0.4174	3.8339
٠		1113	255.5	683.4	-2.3043	4.4940
·		1127	230.7	5.8	-3.1896	-5.0591
	· · ·	1128	394.6	24.1	-0.6839	-4.7438
•		1129	118.1	57.7	-4.9062	-4.3509
•		1130	144.6	119.5	-4.4822	-3.4469
21012	09125034	1123	381.1	577.4	-0.8722	3.0011
	·	1124	246.1	605.5	-2.9333	3.4001
•		1125	138.5	441.8	-4.5591	1.1095
		1126	36.2	672.0	-5.4834	4.3813
		1127	613.2	536.9	2.6330	2.4398
		1128	781.1	559.7	5.1833	2.8133
		1129	492.8	582.1	0.3198	3.0675
		1130	523.1	647.9	1.2758	3.9937
		1135	290.4	120.0	-2.2704	-3.4003
•		1136	32.1	77.3	-5.4629	-4.1075
		1137 1138	32.7	132.0	-6.2209	-3.3422 -3.2627
•	:	1130	104.0	131.0	-3.3817	-3.2021
21013	30125134	1135	661.3	647.0	3.3731	4.0187
		1136	445.5	598.7	0.1180	3.1596
		1137	391.3	640.3	-0.7137	3.8819
		1133	552.0	652.1	1.7140	4.0611
		1139	329.9	534.0	-1.6493	2.3979
		1141	43.9	541.0 451.1	-6.3750 -4.8965	2.5077
		1153	116.5	34.7	-4.6275	1.2394
	·	1154	127.7	190.2	-4.7302	-2.4409
		1155	362.0	7.6	-1.1883	-4.9362
		1156	308.4	109.5	-1.9975	-3.5462
	09125174	1 - 3157	406.6		0.97//	3 0/21
21314	09120174	1153	4.96.6	_580.2 690.0	0.8764	3.0421
,		1154 1155	488.2 735.5	513.7	0.7509 4.4752	4.5928
		1156	677.7	615.0	3.5079	3.5657
•		1157	154.3	562.2	-4.3343	2.7984
•		1157	90.0	563.3	-5.3498	2.8911
		1160	290.7	543.0	-2.2469	2.5245

Rev/	DAS Reference	Point	Mean P Coordi		Image Coordi	nates (mm)
Frame	Time		$\overline{\mathbf{x}}$	Ÿ	x _o	уо
	·					
21016	09126434	726	. 447.5	609.1	0.1343	3.4502
		1435	279.0	164.4	-2.4399	-2.7710
		1442	S5.5	182.0	-5.2235	-2.5615
•		1443	239.9	371.3	-3.0158	0.1324
		1444	455.3	223.3	0.2341	-1.942
	,	1445	770.6	77.4	5.1032	-3.9969
		742	555.3	541.4	1.7605	2.5040
		1446	422.9	97.5	-0.2592	-3.7020
		1451	752.9	665.0	4.7688	4.3434
		1453	618.5	232.1	2.7074	-1.8239
21018	09126574	1435	60.5	652.6	-5.8935	4.1133
		1438	31.3	242.8	-5.4412	-1.7031
		1439	316.1	37.7	-1.8839	-3.8488
		1445	510.4	577.2	1.0869	3.0025
		1446	185.5	596.6	-3.8620	3.2823
		1447	84.6	386.1	-5.3874	0.3262
		1448	262.0	325.2	-2.6845	-0.5153
		1449	476.7	83.3	0.5585	-3.9443
		1450	604.0	131.8	2.4889	-2.5280
		1454	635.1	523.6	3.7132	2.2679
		1456 1457	634.4 750.4	400.6	2.9461	0.5303
		1451	150.4	85•2	4.7744	-3.8864
21022	09126924	1460	699.7	683.9	3.9569	4.5754
•		1461	582.0	593.2	2.1641	3.0890
		1462	702.2	447.7	3.9717	1.1942
21114	09162344	1264	236.6	102.6	-3.0881	-3.6522
		1267	67.0	560.0	-5.7142	2.7788
		1268	193.2	320.0	-3.7269	-0.5894
		1269	468.1	112.1	0.4267	-3.4980
		1270	764.9	19.1	5.0535	-4.8360
		1277	729.0	583.1	4.3852	3.1331
		1278	607.0	316.3	2.5315	-0.6493
		1279	710.1	404.9	4.0903	0.5983
21116	09162484	1-264	312	627.0	-6.3540	3.7515
		1269	235.3	641.7	-3.1064	3.9111
		1270	515.5	552.6	1.1612	2.6570
•		1271	26.1	293.4	-6.2954	-1.0033
		1272	160.4	245.1	-4.2276	-1.6525
	· ·	1275	539.0	34.9	1.5135	-4.5817
]	1276	494.4	202.4	0.8269	-2.2378

Rev/	DAS Reference	Point	Mean P Coordi		1	Image Coordinates (mm)	
Frame	Time		X	Ÿ	x _o	yo	
21115	09162484	1280	772.8	527.4	5.0514	2.350	
		1282	ú64 . 3	361.4	3.3981	70.016	
21113	09162624	1273	386.2	389.9	-0.3024	0.3.81	
		1274	129.7	476.3	-4.7030	1.593	
	=	1275	333.6	522.2	-1.5926	2.232	
		1276	293.9	681.3	-2.2100	4.461	
		1283	678.0	578.8	3.6071	3.045	
•		1235	762.2	388.7	4.8873	0.374	
21210	09198324	1445	265.9	70.5	-2.6463	-4.100	
		1451	213.5	645.0	-3.4471	3.961	
		1452	343.7	543.9	-1.4393 -5.0871	2.540	
		1453 1454	104.5 455.2	204.4 33.9	0.2330	-4.592	
-		1454	723.3	7.7	4.4118	-4.98	
		1464	633.7	271.7	2.9368	-1.269	
		1666	544.0	679.1	1.5965	4.44	
		1667	501.9	571.8	0.9564	2.929	
	·	1668	626.4	445.2	2.8230	1.15	
21218	09198464	1449	67.5	108.5	-5.6756	-3.656	
		1450	176.4	- 214-1	-3.9863	-2.083	
		1454	227.0	561.0	-3.2204	2.782	
		1455	476.2	534.1	0.5676	2.397	
		1456	184.0	432.6	-3.8647	0.98	
	,	1458	495.4	276•2	0.9435	-1.20	
		1459	749.8	231.9	4.7116	-1.82	
		1457	336.4	132.5	-1.5735	-3.21	
		1465	664.7	503.6	3.4034	1.98	
21220	09198604	1457	154.1	584.9	-4.3446	3.11	
		1459	543.4	674.0	1.5835	4.37	
•		1460	138.4	176.9	-4.5667	-2.62	
		I469	536.0	124.5	1.4598	-3.331	
		1470	572.3	263.1	2.0075	-1.39	
21222	09198814	1450	115.2	430.8	-4.9297	1.65	
		1456	127.4	657.0	-4.7979	4.13	
		1457	245.9	419.9	-2.9250	0.800	
		1458	377.7	545.3	-0.9248	2.546	
		1459	596.0	513.8	2.3715	2.10	
		1463	240.6	46.9	-3.0335	-4.45	
•		1467	716.5	564.2	4.1902	2.84	

Rev/	DAS Reference	Point	Mean Pi Coordin		Image Coordin	nates (mm)
Frame	Time		- x	Ÿ.	^X o	y _o
21222	09198814	1469	604.3	8.1	2.5333	-4.9759
		1449	25.0	382.9	-6.3234	0.2658
		1470	634.7	138.6	2.9627	-3.144
21224	09198884	1460	303.8	549.7	-2.0491	2.6109
		1461	209.8	430.4	-3.4742	0.9466
•		1462	340.4	318.1	-1.5001	-0.6270
		1459	658.1	506.0	3.3034	2.0031
	,	1470	689.1	628.5	3.7816	3.7541
21314	09234234	508	438.5	631.7	0.7533	3.7681
		1270	250.9	37.9	-2.8770	-4.5715
		1277	171.6	537.2	-4.0747	3.1513
		1278	68.8	311.5	-5.6336	-0.7307
		1279	160.5 524.6	409.5	-4.2223 1.2963	0.6621
		1280 1281	769.8	41.7	5.0529	-3.0708
		1288	778.2	566.6	5.1370	2.9176
		1290	584.9	262.8	2.1974	-1.3962
21316	09234374	1275	125.0	57.7	-4.8017	-4.3498
		1276	60.7	217.6	-5.7613	-2.0683
		1280	302.0	570.3	-2.0756	2.915
		1281	533.7	659.2	1.4389	4.1618
		1282	209.8	387.8	-3.4721	0.3613
	· ·	1283	478.3	158.4	0.5875	-2.8518
•		1234	303.2	229.7	5.5403	-1.8492
		1291	656.3	543.9	3.2877	2.5506
		1292	796.0	612.7	5.4277	3.5976
21318	09234514	1283	271.3	634.3	-2.5530	3.8042
		1284	578.0	694.5	2.1111	4.6770
		1285	380.3	452.9	-0.8875	1.2631
		1286	534.2	395.6	1.4340	0.4561
		1287	515.2	476.0	2.6535	1.5847
21416	39270214-	1455	2.345	34.6	-3.1262	-4.6272
		1466	730.1	65.6	4.4622	-4.1562
		1463	401.3	519.4	-0.5695	2.2035
		1464	127.2	274.7	-4.7331 -0.1005	-1.2331
•		1465 1473	775.0	514.0	-0.1005 5.0789	2.1724
		1474	686.2	355.2	3.7232	-0.0921
		1475	745.4	242.2	4.6407	-1.6728
	1	*'''	1 ' ' ' ' '	- ' - '	. 1.0 101	1

Rev/ Frame	DAS Reference	Point	Mean Pixel Coordinates		Image Coordinates (mm)	
	T ime		$\overline{\mathbf{x}}$	Ÿ	x _o	yo
						·
21416	39270214	1663	109.4	447.0	-5.0122	1.191
21418	39270354	1453	52.0	277.6	-5.8954	-1.216
		1459	305.4	252.3	-2.0336	-1.397
		1405	194.2	523.2	-3.7167	2.255
		1466	470.4	564.7	0.4794	2.826
		1467	442.2	340.8	0.0421	-0.302
		1468	751.4	105.6	4.7805	-3.598
		1476	736.4	578.0	4.4972	3.063
		1478	603.4	503.3	2.4821	1.970
	·	1479	729.3	373.3	4.3847	0.157
2142)	39270494	1468	528.7	540.4	1.3591	2.484
		1469	167.3	145.5	-4.1326	-3.064
		1470	183.6	285.3	-3.3741	-1.085
`		1480	622.3	539.9	2.7741	3.901
		1481	504.9	310.5	0.9892	-0.732
21514	09306124	1281	252.6	154.1	-2.8406	-2.918
		1288	233.0	574.3	-3.1296	2.969
	·	1289	521.5	627.7	1.2515	3.716
-	·	1290	65.1	255.2	-5.6915	-1.532
		1291	394.4	44.5	-0.6926	-4.449
		1292	538.9	142.1	1.5013	-3.077
		1293	747.8	37.9	4.7696	-4.556
		1296	677.7	569.5	3.6007	2.920
		1298	697.0	206.6	3.9044	-2.175
		1300	576.9	339.6	3.5891	-0.316
		1300	370.9	339.0	3.3071	-0.510
21516	09306254	1281	52.9	679.7	-6.0459	4.518
	· ·	1284	343.1	288.1	-1.4609	-1.036
	Į	1285	169.0	16.1	-4.1312	-4.929
		1287	411.3	61.5	-0.4367	-4.210
		1291	169.8	583.1	-4.1004	3.093
	<u> </u>	1292	303.4	676.2	-2.0642	4.390
		1293	500.2	577.7	0.9317	3.009
		1294	636.9	57.1	3.0162	-4.270
		77295	· - · 735 • 2 ·-	940.	4.•.5,339	-3.759
		1299	706.2	630.2	4.0436	3.797
		1302	559.5	437.8	1.8170	1.048
21518	09305404	1236	139.4	444.5	-4.5459	1.150
		1287	211.3	533.9	-3.4560	2.402
		1294	425.2	527.5	-0.2049	2.304

Rev/	DAS Reference	Point	Mean P Coordi		Image Coordi	nates (mm)
Frame	Time		$\overline{\mathbf{x}}$	Ÿ	x _o	уо
					·	
2 4 6 2 9	0000/404	1295	519.6	561.4	1: 2222	2.7798
21518	09306404	1303	732.7	555.7	1.2232	2.7382
•		1305	616.9	673.6	2.6955	4.3853
		1306	529.3	294.1	i .	-0.9615
		1307	753.0	221.4	1.3570	-1.9735
`		7.0		470.7	5	1 (2/2
21614	09342104	766	103.6	478.7	-5.1083	1.6240
	,	1466	198.0	55.6	-3.6818	-4.3470
		1471	309.3	557.8	-1.7644	2.7295
		1472	449.2	587.8	0.1586	3.1458
		1473	206.5	493.9	-3.5259	1.9109
		1474	130.3	330.4	-4.6865	-0.4567
		1475	193.7	226.5	-3.7247	-1.9127
	<u> </u>	1476	474.1	103.0	0.5202	-3.6320
		1477	675.1	167.1	3.5758	-2.7371
		1478	339.3	3.7	-1.5356	-5.0499
21616	09342244	1468	292.3	117.9	-2.2450	-3.4349
•		1476	229.0	539.1	-3.1942	3.1696
		1477	414.8	648•8	-0.3657	3.9991
		1478	105.5	494.8	-5.0784	1.8492
	,	1479	240.4	382.1	-3.0096	0.2749
		1480	380.3	240.0	-0.9038	-1.7173
		1482	649.6	167.1	3.1791	-2.7425
21618	09342334	1463	115.2	568.3	-4.9516	2.8833
		1480	198.8	682.6	-3.6840	4.4880
		1481	116.1	338.0	-4.9063	-0.3570
		1482	445.6	613.3	0.1026	3.4990
		1486	490.9	404.4	0.7816	0.5734
		1487	753.7	233.0	4.7701	-1.8208
	٥	1489	752.9	560.3	4.7469	2.8050
21705	09375004	196	66.8	328.0	-5.6640	-0.4958
		197	291.5	276.5	-2.2434	-1.2009
		306	254.0	589.0	-2.8101	3.1733
		368	380.0	375.1	-0.8990	0.1772
		383	4-38- _• -6	679.3	0.0031	4.4343
21710	.39373314	799	694.4	512.7	3.8512	2.1231
	.0,010014	1296	120.0	465.6	-4.8512	1.4473
j		1297	445.4	515.7	3.1003	2.1433
		1298	162.1	113.3	-4.2173	-3.5173
		1299	442.6	35.1	0.0405	-4.5747
		1677			U•U-U-U	

Rev/	DAS Reference	Point	Mean Pixel Coordinates		Image Coordinates (mm)	
Frame	Time		X	Ÿ	x _o	y _o
21710	J9378014	1300	132.2	241.1	-4.6624	-1.7103
		1301	722.7	123.9	4.3212	-3.3312
		1308	628.0	323.9	2.8483	-0.5371
21712	09378154	1295	302.0	35.6	-2.1022	-4.5948
		1299	213.7	558.6	-3.4263	2.8899
		1301	475.1	648.6	0.5500	4.0047
	·	1302	37.5	356.6	-5.3445	-0.0892
		1303	530.9	62.0	1.3869	-4.1991
•		1304	786.5	151.8	5.3095	-2.9450
		1305	339.2	171.4	-0.7717	-2.6681
		1309	714.0 561.7	566.3 323.0	4.1517	2.8865
21.716	09378294	1205	1.	[
21714	09318294	1295	104.8	497.1	-5.0896	1.8860
		1303	317.9 561.0	522.3	-1.8322	12.2363
		1305	137.1	601.6 625.4	1.8433 -3.8491	3.3497
		1306	145.0	232.6	-4.4674	-1.8315
•		1307	385.4	185.6	-0.3236	-2.4706
		1311	733.0	442.3	4.4375	1.1234
•	·	1312	665.5	122.6	3.4514	-3.3543
22018	09486024	1485	406.9	92.3	-0.5029	-3.7746
		1489	647.1	297.7	3.1336	-0.9068
22019	09486234	1436	. 217.4	428.2	-3.3571	0.9286
		1487	492.2	315.8	0.7952	-0.6541
		1489	421.6	633.3	-0.2608	3.7877
	,	1490	694.8	16.9	3.9429	-4.8480
	·	1492	790.3	289.5	5.3298	-1.0105
22,020	69485444	1487	314.3	606.9	-1.8820	3.4196
		1490	506.4	336.9	1.0125	-0.3628
		1491	ó59∙2	641.4	3.3333	3.9383
		1492	595.7	594.9	2.2200	3.2592
22214	09557774	1493	161.5	139.4	-4.2259	-3.1664
j		1500	804.0	146.4	5.5861	-3.0393
		1502	645.7	202.2	3.1170	-2.2593
		1513	120.0	304.2	-4.8452	-0.8383
22617	09702324	1529	312.3	599.7	-1.9186	3.3149
	i	1530	453.7	649.4	0.3802	4.0090

Rev/	DAS Reference	Point	Mean P		Image Coordi	nates (mm)
Frame	Time		\overline{x}	Ÿ	x _o .	y _o
22517	09702324	1531	324.0	285.5	-1.7438	-1.0793
23010	09844634	1600 1601 1602 1604	563.3 458.8 405.4 327.5	674.8 240.8 339.2 171.7	1.9626 0.2871 -0.5152 -1.7070	4.3827 -1.7090 -0.3330 -2.6750
23311	09953834	1605 1348 1357 1358 1359	442.5 45.2 39.8 291.5 486.1	120.2 282.8 127.1 211.1	0.0512 -6.0256 -6.0862 -2.2539 0.7010	0.6887 -3.5065 -1.1513 -3.3011 -2.1191
		1361 1363	319.3 273.6	32.0 531.3	-1.8394 -2.5091	-4.6492 3.0610
41609	11445644	1333 1642 1644	458.4 471.3 258.0	593.6 15.0 104.4	0.2996 0.4848 -2.7611	3.2288 -4.8636 -3.6259
41611	11445784	1332 1333 1342 1343 1355 1571 1572	58.2 129.6 251.4 400.0 384.6 733.3 580.3	571.7 116.8 545.8 420.3 602.8 454.5 63.8	-5.8603 -4.7112 -2.8442 -0.5913 -0.8211 4.0642 2.1465	2.9392 -3.4957 2.5640 0.8061 3.3563 1.4372 -4.1775
41614	11446134.	1571 1572 1573 1574 1653 1654	386.9 209.4 649.2 699.9 437.5 725.8 258.5	666.6 337.2 497.4 370.1 292.8 19.3 32.4	-0.7881 -3.4795 3.1716 3.9397 -0.0308 4.4361 -2.7620	4.2489 -0.3535 1.8860 0.1038 -0.9792 -4.8292 -4.6563
41724	11481624	1491 1495 1496	71.2 145.8 455.5	311.9 490.2 326.7	-5.5948 -4.4550 0.2428	-0.7280 1.7902 -0.5022
		1497 1498 1564	368.2 604.2 788.2	459.0 661.8 632.6	1.0708 2.5024 5.3145	1.3489 4.2120 3.8841
41726	11481764	1498 1514	263.5 250.8	212.2 643.9	-2.6719 -2.8691	-2.1036 3.9386

Rev/	DAS Reference	Point	Mean Pixel Coordinates		Image Coordinates (mm)	
Frame	Time		x	Ÿ	x _o	yo
41726	11481764	.1515	257.4	466.8	-2.7506	1.4636
-		-1516	366.9	430.3	-1.0891	1.6467
	İ	1517	466.8	635.9	0.4253	3.8233
		1529	542.4	503.9	1.5650	1.9732
	•	1530	591.5	625.9	2.3092	3.6967
		1531	739.5	331.6	4.5434	-0.4284
		1564	441.4	219.3	0.0228	-2.0006
41729	11432114	1531	392.7	548.0	-0.6973	2.5894
		1556	578.2	519.5	3.5070	2.2066
•		1564	109.6	499.1	-5.0153	1.9105
•		1568	659.3	241.4	3.3255	-1.6988
		1570	464.1	388.1	0.3764	0.3523
	,	1659	160.8	21.0	-4.2551	-4.8690
		1660	428.2	58.9	-0.1777	-4.2494
٠		1661	125.0	162.5	-4.7720	-2.8353
42239	11622420	1343	243.4	99.8	-2.9034	-3.6933
		.1354	254.4	510.4	-2.6450	2.0700
		1355	178.1	285.0	-3.9574	-1.0397
		1571	549.9	253.6	1.6673	-1.5261
42211	11622560	1366	85.4	169.2	-5.3860	-2.7598
	·	1370	39.1	460.0	-5.3274	1.3611
		1575	669.2	243.5	3.4622	-1.6723
		1576	735.2	89.6	5.3301	-3.8342
		1577	287.5	500.6	-2.2934	1.9319
	•	1596	569.2	565.6	1.9730	2.8371
		1597	737.2	527.2	4.5041	2.3272
42213	11622770	1565	39.0	661.3	-6.2561	4.2517
•		1592	596.0	358.9	2.3660	-0.0544
'	•	1593	711.9	628.0	4.1299	3.7663
		1593	183.8	640.2	~3.9059	3.8962
42214	11622910	1565	531.4	180.3	1.3881	-2.5519
		1573	177.5	276.4	-3.9682	-1.2145
		1574	76-3	192-9	-2.47-26	-2.5200
'	· ·	1575	294.7	504.4	-2.1374	3.3778
		1576	373.6	443.1	-0.9895	1.1220
i		1598	678.9	150.8	3.6353	-2.9634
42523	11657070	1603	535.7	123.1	1.4546	-3.2752
	l	1606	458.0	266.5	0.2769	-1.3415

Rev/	DAS Reference	Point	Mean Pixel Coordinates		Image Coordinates (mm)	
Frame	Time		X	Ÿ	x _o	y _o
42323	11657070	1607	393.8	625.3	-0.6807	3.6729
42324	11658400	1514 1515 1516 1517 1524 1529 1530 1531	99.0 163.9 267.2 322.6 83.0 440.3 455.5 694.1	290.8 109.3 153.0 353.4 395.8 235.9 391.1 131.4	-5.1639 -4.1887 -2.6186 -1.7653 -5.4139 0.0153 0.2474 3.8728	-1.0191 -3.5795 -2.9354 -0.1224 0.4593 -1.7689 0.3976 -3.2311
42325	11658540	1543 1544 1550 1551 1553 1554 1555 1563	193.5 469.3 159.5 159.9 372.2 608.3 629.7 631.6 703.1	332.7 368.3 469.7 655.1 613.5 165.5 382.7 667.9 227.4	-3.6447 -0.4532 -4.2424 -4.2341 -1.0091 2.5564 2.8749 2.9175 3.9969	-0.4131 0.0808 1.7854 4.1093 3.5079 -2.7575 0.2780 4.3087 -1.8917
42329	11658890	1569 1554 1556 1566 1568 1569 1570	775.7 221.8 247.3 318.5 338.2 408.1 95.0	342.3 553.5 315.3 586.1 53.6 670.7 99.2	5.0961 -3.2987 -2.9071 -1.8246 -1.5431 -0.4652 -5.2550	-0.2756 2.6726 -0.6591 3.1238 -4.3334 4.3080 -3.7784
43011	11799591	1577 1595 1596 1597	30.5 788.3 315.5 490.7	112.1 438.0 243.5 263.1	-5.4732 5.2848 -1.3817 0.7730	-3.6012 1.0765 -1.6654 -1.3943
45013	11799731	1579 1595 1662	583.5 531.4 667.1	600.9 90.8 386.7	2.1884 1.3919 3.4396	3.3416 -3.8016 0.3358
43015	11500011	1594 1595 1662 1663	748.5 194.3 352.7 664.2	514.4 339.4 586.9 115.7	4.6741 -3.7073 -1.3037 3.4197	2.1580 -0.3149 3.1403 -3.4449
43317	11800151	1584	616.3	495.0	2.6772	1.8506

Rev/	DAS Reference Time	Mean Pixel Point Coordinates		Image Coordinates (mm)		
Frame		ame Time		$\overline{\mathbf{x}}$	Y	^x o
		·				
43017	11300151	1592	691.0	15.5	3.8838	-4.8646
	1	1593	672.3	288.1	3.5311	-1.0424
		1594	325.3	623.3	-1.7228	3.7096
		1663	246.6	243.3	-2.9233	-1.6707
43123	11835571	1205	149.1	646.4	-4.4516	3.9880
,-		1207	94.4	292.1	-5.2363	-1.0012
		1209	332.8	569.2	-1.6062	2.8906
	,	1213	559.4	615.9	1.8264	3.5513
	i	1553	164.4	192.6	-4.1729	-2.3944
		1555	465.0	33.1	0.3829	-4.6071
		1562	195.7	393.1	-3.6865	0.5031
		1563	390.6	322.3	-0.7397	-0.5606
		1599	600.6	434.1	2.4353	0.9977
		1610	674.0	227.3	3.5502	-1.8935
43125	11835711	. 1209	62.7	161.6	-5.7449	-2.8840
		1210	104.7	284.7	-5.0762	-1.1035
•		. 1211	96.5	510.4	-5.2177	2.0720
		1212	401.3	311.6	-0.5783	-0.7116
		1213	265.6	227.2	-2.6388	-1.8922
		1220	214.9	635.1	-3.4196	3.8192
		1221	327.9	565.2	-1.6804	2.8344
•		1222	253.7	377.7	-2.8073	0.2190
		1599	323.3	62.0	-1.7749	-4.2145
		1611	569.5	468.1	1.9699	1.4714
	ĺ	1612	575.3	334.3	2.0535	-0.4013
		1613	532.1	133.7	1.3991	-3.2002
43127	11335991	1610	70.3	176.5	-5.6218	-2.6636
		1611	273.8	682.0	-2.5211	4.4718
	ĺ	1612	261.9	551.3	-2.6860	2.7308
	· ·	1613	199.8	387.9	-3.6239	0.3582
·		1615	601.6	376.3	2.4493	0.1836
43129	11336131	1627	356.0	170.9	-1.2749	-2.6724
		1628	603.1	9.1	2.5140	-4.9407
		1629	658.0	372.8	3-3018-	0.1471
		1630	651.6	47.3.7	3.2064	1.5604
		1631	775.9	391.9	5.0964	0.4314
43611	11976589	1578	49.5	335.1	-5.9282	-0.4059
	}	1579	325.3	296.9	-1.7253	-0.9166
7	1	1580	106.5	639.5	-5.1170	3.8962

Rev/ Frame	DAS Reference Time	Mean Pixel Point Coordinates			Image Coordinates (mm)	
rrame		,	\overline{x}	<u> </u>	x _o	y _o
		· .				
43611	11976589	1531	773.2	501.1	5.0540	1.9718
		1582	626.3	676.4	2.8456	4.4281
		1562	471.5	115.9	0.4811	-3.4509
43613	11976729	1422	63.1	504.1	-5.7474	1.9825
		1581	517.5	83.1	1.1815	-3.9094
		1582	362.2	230.0	-1.1750	-1.8528
•	•	1583	736.3	79.6	4.5584	-3.9680
		1535	507.3	510.3	1.0369	2.0593
43615	11977009	1581	193.3	347.4	-3.7224	-0.2100
		1582	74.9	502.4	-5.5569	1.9556
		1583	393.9	309.9	-0.6896	-0.7389
		1584	657.7	173.4	3.3091	-2.5809
	·	1586	488.3	463.1	0.7476	1.3973
•	*	1591	635.6	497.2	2.9689	1.8806
		1594	312.2	139.3	-1.9390	-3.1282
43617	11977149	1584	109.3	496.9	-5.0192	1.8799
		1590	352.9	659.2	-1.3048	4.1448
		1592	395.8	131.8	-0.6716	-3.2217
		1593	253.6	343.0	-2.8100	-0.2672
		1656	775.3	643.3	5.1202	4.0289
•		1657	725.1	259.7	4.3298	-1.4368
43723	12012569	1611	304.6	159.5	-2.0535	-2.3425
		1612	351.5	39.5	-1.3479	-4.5318
		1614	528.7	651.5	1.3613	4.0460
		1615	766.9	37.3	5.0785	-4.5801
		1616	795.3	605.0	5.4128	3.4766
43725	12012709	1614	. 269.1	189.4	-2.5898	-2.4287
		1616	524.8	185.2	1.2854	-2.4855
		1617	420.1.	416.1	-0.2885	0.7429
		1618	616.2	367.7	2.6704	0.0623
		1619	461.3	644.2	0.3412	3.9350
43727	12012989	1616	204.6	434.8	-3.5516	10178
	1	1617	145.4	652.8	-4.5102	4.0779
	,	1613	309.9	581.9	-1.9551	3.0693
		1623	650.8	403.9	3.1943	0.5822
	,	1625	750.5	314.6	4.7127	-0.6598
		1626	748.2	183.3	4.6943	-2.4266

Rev/	DAS Reference	Mean Pixel Point Coordinates			Image Coordinates (mm)		
Frame	Time		$\overline{\mathbf{x}}$	Ÿ	x _o	y _o	
43729	12013129	1625	227.7	614.8	-3.2176	3.5319	
43129	12012127	1626	221.8	494.7	-3.2913	1.8544	
·	•	1627	218.0	48.4	-3.3776	-4.4300	
		1623	549.3	47.1	1.6712	-4.4022	
·	,	1629	441.4	358.1	0.0303	-0.0591	
		1630	391.3	441.1	-0.7215	1.1010	
		1631	567.2	445.7	1.9333	1.1612	
		1632	728.3	332.1	4.3716	-0.4179	
Ì		1633 1634	771.7	463.5	5.0248	1.4393	
·		1034	009.4	645.6	3.4836	4.0030	
44409	12152467	1429	93.6	495.3	-5.2613	1.8593	
		1430	92.4	278.5	-5.2659	-1.1960	
		1440	235.9	497.8	-3.0762	1.8962	
		1585	373.5	159.9	-1.0090	-2.8327	
		1586	746.8	48.4	4.7465	-4.4122	
,		1587	765.2	567.7	4.9392	2.9236	
	:	1,588	518.8	606.9	1.2143	3.4183	
44411	12152607	1449	77.6	453.3	-5.5038	1.2677	
, , , , ,		1587	562.6	195.8	1.3623	-2.3341	
		1588	330.3	201.1	-1.6609	-2.2559	
		1645	673.4	360.6	3.4922	-0.0307	
	:	1646	768.5	479.8	. 4.9839	1.6623	
	, i	1647	382.5	434.7	-0.8512	1.7058	
44413	12152837	1586	181.9	11.5	-3.9281	-4.9955	
		1587	172.2	460.5	-4.0446	1.3732	
·		1590	585.5	142.9	2.2130	-3.0758	
. [1591	281.7	104.5	-2.4014	-3.6218	
	j	1645	235.6	592.8	-2.3262	3.2186	
	·	1646	387.3	639.4	-0.7843	4.5714	
		1651	757.4	- 651.0	4.8399	4.1295	
44524	12185377	1617	467.5	39.7	0.4204	-4.5102	
}	22200311	1618	663.1	54.5	3.4231	-4.3077	
		1619	421.7	260.8	-9.2732	-1.4177	
	** ~ *	1620	679.2	455 - 9-		1.3125	
']		1621	634.1	661.0	2.9556	4.2118	
		1622	311.2	461.0	-1.9348	1.3840	
.44526	12188517	1420	445 6	20.2	0.1454	-0 (351	
		1620	449.6	99.2	0.1456	-3.6756	
ļ	` }	1621 1622	385.8 111.9	283.6 70.7	-0.8149 -5.0006	-1.0274 -4.1693	
		1056		10.1	- 2.0000	-4.1073	

Rev/	DAS Reference Time	Point	Mean Pixel Coordinates		Image Coordinates (mm)	
Frame		·	x	Ÿ	x _o	y _o
				·		
44526	12188517	1624	539.9	391.1	1.5192	0.3999
	1220022.	1635	322.1	640.1	-1.7772	3.9692
·		1636	715.4	684.4	4.1977	4.6053
44528	12183797	1618	110.4	41.4	-5.0372	-4.6064
		1620	103.2	378.1	-5.0991	0.2153
		1621	69.0	552.4	-5.6773	2.6691
	, ·	1623	471.7	52.6	0.4855	-4.3268
		1624	209.7	625.9	-3.4959	3.6914
		1625	601.3	38.7	2.4734	-4.5208
•		1658	788.9	530.4	5.2994	2.4064
44530	12188937	1628	685.6	58.1	3.7709	-4.2529
	·	1625	62.9	246.6	-5.7251	-1.6575
		1629	400.1	189.2	-0.5045	-2.4157
	•	1630	305.2	214.5	-2.0402	-2.0624
	٠.	1631	471.8	334.8	0.4891	-0.3855
		1632	705.5	375.9	4.0231	0.1973
		1633 1634	676.6	510.1	3.5832	2.0805
		1034	461.3	571.3	0.3419	2.9111
45009	12327986	1645	568.1	73.6	1.9552	-4.0402
•		1646	622.6	207.4	2.7714	-2.1722
		1647	263.1	109.4	-2.6032	-3.5512
		1648	786.6	533.0	5.2661	2.4339
45011	12328126	1648	5.62.1	99.5	1.3609	-3.6778
		1649	568.8.	361.9	1.9572	-0.0153
	,	1650	756.4	306.0	4.8066	-0.7868
45013	12323406	1648	102.3	221.0	-5.1226	-2.0127
	-	1649	125.2	453.3	-4.7676	1.2698
		1650	290.2	386.7	-2.2541	0.3416
		1651	311.2	36.7	-1. 9569	-3.8687
		1656	642.2	93.6	3.0886	-3.7643
		1658 1659	. 765.6 635.3	468.9 612.0	4.9336 3.7332	1.5088 3.5246
45124	12363896	1624	479.0	16.4	0.6024	-4.8452
· • •• •	1 223070	1635	203.7	184.9	-3.5760	-2.4963
		1636	545.7	324.4	1.6076	-0.5400
		1637	738.2	509.6	4.5313	3.5158
45125	12364036	1541	797.1	272.9	5.4378	-1.2435

Rev/ Frame	DAS Reference Time	Point	Mean Pixel Coordinates		Image Coordinates (mm)	
Frame			\overline{x}	<u> </u>	×o	yo
						·
45125	12364036	1642	761.9	418.2	. 4.3837	0.794
		1643	495.9	384.6	0.3582	0.30
		1644	556.6	504.0	1.7804	1.97
45127	12364316	1634	706.9	83.1	4.0930	-3.91
		1637	116.6	455.0	-4.9006	1.29
	,	1638	435.9	91.3	-0.0602	-3.79
		1639	763.2	411.9	4.9807	0.70
		1640	567.4	411.1	1.9345	0.67
		1641	390.1	507.1	-0.7359	2.01
	·	1642	374.7	642.7	-0.9725	3.91
		1643	139.7	, 649.5	-4.5978	4.03
45129	12364456	1628	740.2	28.7	4.6542	-4.68
		1631	402.2	121.4	-0.5732	-3.36
	•	1632	615.0	265.4	2.6550	-1.35
		1633	526.2	356.3	1.3142	-0.08
		1634	290.2	298.4	-2.2576	-0.89
		1638	30.6	322.3	-6.2251	-0.59
		1639	355.3	612.0	-1.2657	3.48
	·	1640	166.3	619.4	-4.1606	3.59
		1652	738.7	590.4	4.5341	3.10
		1678	792.9	367.0	5.3579	0.08
45812	12502275	1656	354.2	62:6	-1.3016	-4.20
	•	1657	730.8	112.2	4.4581	-3.49
	·	1658	298.6	385.9	-2.1264	0.32
		1659	167.3	464.2	-4.1186	1.42
:		1660	412.5	567.5	-0.3961	2.86
		1661	106.2	590.2	-5.1066	3.19
45911	12538255	1632	669.8	73.4	3.5207	-4.03
		1639	260.7	164.7	-2.7153	-2.77
		1640	105.9	88.8	-5.0872	-3.92
	,	1652	613.9	357.0	2.6374	-0.07
		1653	267.9	641.5	-2.6067	3.89
	/ · · · 	1654	639.8	516.3	3.0315	2.16
		1655 1678	193.4 783.5	352.0 245.3	-3.7.200 5.2295	-0.14 -1.61
53301	13165256	. с	396.9	474.8	-0.6350	1.56
	13107270	31	316.0	396.4	-1.8653	0.47
		33	45.3	613.8	-6.1060	3.55
	٠	34	473.7	30.5	0.5102	-3.95

Rev/ Frame	DAS Reference Time	Point	Mean Pixel Coordinates		Image Coordinates (mm)	
			$\overline{\mathbf{x}}$	Ÿ,	x _o	y _o
53301	13165256	35 38 819 823 825 826 827 828	620.9 471.5 648.4 274.2 433.7 596.0 278.5 242.4	497.0 603.0 77.3 205.0 524.7 550.7 457.1 634.1	2.7446 0.4968 3.1838 -2.5132 -0.0005 2.3741 -2.4303 -2.9960	1.8740 3.3584 -3.9994 -2.2076 2.2601 2.6282 1.3247 3.8019

ACKNOWLEDGMENTS

The author would like to express his appreciation to Gordon Hoover of Caltech for his continuing interest and support of the control point measurements program. He has been the spark plug of this effort. Tav Heistand of Caltech and Rose Heirschfeldt of Rand also contributed greatly to this work.

In addition, the author is indebted to Rose Heirschfeldt for the computation of the image coordinates from the pixel coordinates using the reseau locations furnished by JPL for each frame and their GEOM program.

Finally, the author would like to thank William Green, Joel Seidman, Arnold Schwartz, and the many others at IPL/JPL who carefully supplied the map-gridded pictures and reseau locations which made this work possible.

This research was supported by the Jet Propulsion Laboratory, California Institute of Technology, through Rand Contract No. 953011.

REFERENCES

- 1. Davies, Merton E., Mariner 9 Control Net of Mars: June 1973, The Rand Corporation, R-1309-JPL, June 1973.
- 2. Snyder, L. M., Mariner 9 TV Subsystem Calibration Report, Technical Report 610-202, Jet Propulsion Laboratory, California Institute of Technology, November 15, 1971.
- 3. Krezner, John E., User and Programmer Guide to the MM'71 Geometric Calibration and Decalibration Programs, Technical Report 900-575, Jet Propulsion Laboratory, California Institute of Technology, 1 March 1973.
- 4. Koskela, P. E., M. R. Helton, L. N. Seeley, and S. J. Zawacki, Mariner Mars 1971 Television Picture Catalog, Sequence Design, and Picture Coverage, Vol. II, Technical Memorandum 33-585, Jet Propulsion Laboratory, California Institute of Technology, December 15, 1972.